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ABSTRACT

Based on information and documents gathered from 103 Association of Research Libraries (ARL) member libraries via an April 1986 ARL Recon Project questionnaire, and supplemented with additional interviews and materials gathered throughout the year, this publication focuses on retrospective conversion projects designed to support the implementation of online catalogs and participation in nationwide databases. A concise summary discusses cooperative national developments and planning, funding, and decision-making considerations. The Recon Project questionnaire, a preliminary analysis of survey results, and a listing of systems used for the retrospective conversion of records in 43 ARL libraries are provided, as well as the following documents: (1) planning documents from the University of Chicago, Virginia Polytechnic Institute, Vanderbilt University, Colorado State University, Cornell University, the University of Iowa, and Rutgers University; (2) descriptions of studies of retrospective conversion from the University of Michigan and Brown University; and (3) the description of a completed shelf list conversion project from Kent State University. A seven-item bibliography, a Systems and Procedures Exchange Center (SPEC) kit order form, and an ARL SPEC kit evaluation form are also included. (KM)

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____ 110. Local Cataloging Policies
____ 111. Cooperative Collection Development
____ 112. Automation/Reorgan.Technical/Public Services
____ 113. Preservation Education
____ 114. Binding Operations
____ 115. Photocopy Services
____ 116. Organizing for Preservation
____ 117. Gifts and Exchange Function
____ 118. Unionization
____ 119. Catalog Maintenance Online
____ 120. Exhibits
____ 121. Bibliographic Instruction
____ 122. End-User Searching Services
____ 123. Microcomputer Software Policies
____ 124. Barcoding of Collections
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Kit documents come from general membership surveys and from selected libraries contacted directly by SPEC, and most Kits are produced within six months of surveys. The documents' value comes from their variety of ideas, methods, and solutions. They are not viewed as finished products, but rather as points of departure for a library's planning efforts and as stimulants to innovative approaches to problem-solving. As such, Kits do not present answers or prescriptions for any one library; instead they illustrate how selected ARL members are planning for or dealing with particular issues. The worth of any one Kit to a particular library will depend upon the specific topic covered and the library's stage of development in that area.

Materials are selected according to the following criteria:

- Presents an approach of potential value to administrators and decision-makers
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All together, the materials should provide a range of alternative approaches that complement each other, provide variety, and stimulate comparison and contrast.

Libraries can take advantage of the Kit compilations in a number of ways. Administrators can evaluate the assumptions, methods, and results of other libraries' approaches; compare and contrast them; and use the learnings in their own situations. Library staff members can use the kits as professional development and current awareness tools. Committees and task forces can use them to begin a review of current practices. And the Kits can identify other persons or places to contact for further information. Back-up files in the SPEC office also are available for loan to member libraries. In addition, SPEC will conduct on-demand surveys or analyses geared specifically for a single library.

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spec flyer
#130, January 1987
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RETROSPECTIVE CONVERSION IN ARL LIBRARIES

During the past ten years, ARL libraries have shifted focus from reclassification projects aimed at improving access to specific collections to retrospective conversion projects designed to support implementation of online catalogs and participation in nationwide databases. A noticeable change centers on the fact that the majority of ARL libraries now have or will implement online catalogs, and are cooperating in national projects to share data. In addition, in many libraries the online catalog is one component of an integrated library system, using a common, integrated database accessible to users across the campus.

This kit is based on information and documents gathered as part of an April 1986 ARL Recon Project Questionnaire, supplemented with additional interviews and materials gathered throughout the year. The total number of libraries responding to the original questionnaire was 103, and detailed data on retrospective conversion plans were tabulated from the responses of 44 libraries. A summary of selected questionnaire results can be found in the kit.

In March 1975, a *SPEC Kit on Reclassification (#16)* provided examples of how reclassification projects were justified and carried out in several ARL libraries. In June 1980, a *SPEC Kit on Retrospective Conversion (#65)* focused on planning for replacements for the card catalog (i.e. an online catalog or a COM catalog) in a limited number of ARL libraries. At that time, occasional conversion was undertaken to provide information to be used in automated circulation systems.

COOPERATIVE NATIONAL DEVELOPMENTS. In the six years since the 1980 SPEC kit, developments at the national level have sparked increased interest and activity in cooperative approaches to retrospective conversion. A meeting supported by the Council on Library Resources (CLR) in 1984 resulted in publication of two volumes which highlighted the status of retrospective conversion at the time and identified goals and strategies for addressing retrospective conversion on a national level. Following publication of CLR's recommendations, ARL began a two-year pilot project to coordinate retrospective conversion efforts among member libraries.

Responses to the 1986 ARL questionnaire indicate two prevailing situations. More large research libraries are considering and planning for complete retrospective conversion, and more medium-sized libraries are completing retrospective conversion. Consequently, more libraries have all of their records in machine readable form than ever before. Previously, institutions took a rather pessimistic view of their ability to complete retrospective conversion of massive collections. It was typical for a large library to consider conversion only for materials acquired or published after a certain date, or to select certain classes, special collections, or individual units as targets for conversion efforts. As databases grow larger, both those of utilities and commercial vendors, prospects for complete conversion improve. More conversion creates more records, more records create more capacity. The high conversion activity which has been building over the last few years creates a higher hit rate, thus making the possibilities of full retrospective conversion more feasible and attractive.

At one time, retrospective conversion could almost be identified as a cottage industry. Options for conversion were limited to primarily inhouse keying of records directly into a utility or working with a few vendors. Currently, networks and utilities have made more of a commitment to helping libraries undertake retrospective conversion. Planning documents from utilities and networks help libraries analyze their retrospective

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conversion needs before undertaking projects. Price breaks from utilities and networks offered on retrospective conversion records help libraries by reducing costs. System enhancements also have supported recon endeavors. The choice of methods for retrospective conversion has increased and improved especially with the introduction of microcomputer-based systems.

LIBRARY TRENDS AND ISSUES. Currently, libraries are emphasizing careful planning and recognizing retrospective conversion as a long range consideration central to providing information and meeting user needs. The importance of machine readable records as a long term objective affects a library's approach to standards and its commitment to online maintenance of those records. Although difficult to accomplish, a library needs to project fully its future retrospective conversion activity.

Libraries initially face the issue of the high costs involved with large scale conversion. They have tapped a variety of sources for funding, ranging from internal reallocation of staff to federal funding available through LSCA, HEA's Title IIC and grants from other agencies. Foundation support has been sought by individual libraries to support focused conversion projects as well as through utility sponsored projects.

In planning for recon, libraries face a number of decision points. Typical questions a library considers include: Will this be full or partial retrospective conversion? Is it to be done inhouse in an interactive manner, or will it be a batch microbased program? Will commercial vendors be used for some of the conversion or all of the conversion? What level of record fullness should be done?

Frequently, conversion projects may be undertaken without a full understanding of the costs involved with cleanup of the records produced through conversion and their preparation for local or national files. How much energy, time and money should be devoted to cleanup activities, and when do they become part of continued ongoing maintenance? Some libraries report that post-conversion activities can be significant, both in terms of achieving the desired high quality machine readable product or in additional continued effort by local staff. It is better to have analyzed and budgeted for costs during this phase than to be surprised by unanticipated expenses, inhouse or otherwise, when a project is "completed." A different range of questions can be asked about the integration of the tapes with other library machine readable records, for instance circulation files. Authority control issues are raised then.

Many more vendors are offering retrospective conversion services, and librarians need to examine the market place carefully, evaluating a number of factors before making any decisions. Libraries need to consider carefully their expectations of an end result from working with a vendor, especially, or even in an inhouse operation. Will local holdings be put into the network the library may participate in or will they go only into the integrated library system? What about difficulties in quality control when working with a vendor? How might these issues be resolved and what are good procedures for clarifying expectations at the beginning of a project?

While many libraries have completed retrospective conversion, few have evaluated projects in print. As more libraries become involved with recon, it would be helpful to have available data widely shared about successful and less successful examples in order to help those beginning conversion. Will more libraries be fully converted? It seems likely, although some libraries may choose to have fewer full, standard records, and provide access through less complete records. Whatever methods are selected, it is reasonable to expect increased retrospective conversion throughout the remainder of the decade and into the 1990s, as libraries move to online systems.

The *SPEC Kit on Retrospective Conversion (#130*, January 1987, 115 pages) contains selected survey results, planning documents from seven libraries, two descriptions of studies, one report on a completed project, and a short bibliography.

* * *

This flyer/kit was prepared by Barbara von Wahlde, Director, Libraries, State University of New York at Buffalo, as part of the OMS Collaborative Research/Writing Program.

SPEC Kits (ISSN 0160 3582) are available by subscription through subscriptions services or direct from the publisher. Individual issues cost $20.00, plus $5.00 postage outside the U.S., through distributors or direct. (ARL member price $10.00.) Prepayment is required. If ordering direct, send check payable to "ARL Office of Management Studies" to: SPEC, Office of Management Studies, 1527 New Hampshire Ave., N.W., Washington, D.C. 20036. Order by Kit Number and Title. Direct Order Forms listing back issues and Subscription Forms are available from the same address.

Table of Contents
OMS
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Retrospective Conversion in ARL Libraries
#130, January 1987

SURVEY

1986 Questionnaire on Retrospective Conversion
Preliminary Analysis of Results 1
System Used to Convert Records 10/86 4

PLANNING DOCUMENTS

Chicago, Univ. of — A Background Paper to Facilitate Planning at Chicago 10/85 5
Virginia Polytech. Inst. — Retrospective Conversion/Cataloging Priorities 7/86 11
Vanderbilt Univ. — A Proposal for an Online Catalog Review and Retrospective Conversion Project 15
Colorado State Univ. — A Preliminary 10-Year Plan for Conversion of Catalog Records for the Libraries Collections 5/86 19
Cornell Univ. — Record Conversion in the Cornell University Libraries: A Report to the University Librarian 11/85 32
Iowa, Univ. of — Conversion of Library Records to Machine Readable Format 12/83 40
Rutgers Univ. — Proposed Guidelines for a Long-term Coordinated Retrospective Conversion Program at Rutgers 6/86, RECON Proposal for Internal Funding: A Three-Year Retrospective Conversion Plan at Rutgers 1/85, An RLIN Retrospective Conversion Project at Rutgers University Libraries: An Overview of Working Assumptions 9/85 52

STUDIES

Michigan, Univ. of — Introduction for Recon Discussion Document 10/86, Retrospective Conversion Discussion Paper 7/85 67
Brown Univ. — Retrospective Conversion Task Force Report on the Sample of the Non-LC Shelflists 6/86 86

COMPLETED PROJECT

Kent State Univ. — Shelf List Conversion Project 6/82 108

BIBLIOGRAPHY 115

Survey

OFFICE OF MANAGEMENT STUDIES

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1986 Questionnaire on Retrospective Conversion

Preliminary analysis of results.

Prepared by Jutta Reed-Scott

In April, 1986 ARL members were surveyed to provide information on retrospective conversion activities and to indicate priorities for ARL recon projects (copy of questionnaire attached). At present, 103 returns have been received; a reminder letter was sent to the non-respondents. Analysis of the returns from 103 libraries is given below. A comparison with the 1985 recon survey is attached. See Attachment A.

I. Retrospective Conversion Activities

14 libraries have completed retrospective conversion and no further recon is planned.

13 libraries do not plan to undertake any significant retrospective conversion before 1988.

72 libraries plan to undertake retrospective conversion.

4 libraries did not complete the information.

The questionnaire asked libraries that have concrete plans for retrospective conversion to provide estimates by LC class for the number of monographic records targeted for conversion and the projected year when the project is to be completed. 44 libraries provided information. The data have been input into a database filing system at ARL. The establishment of this Recon Clearinghouse will enable ARL to provide up-to-date information on member libraries' plans for retrospective conversion of monograph collections in specific Library of Congress classifications.

II. Interest in Project Participation

In response to the question whether the library is interested in participating in a collaborative retrospective conversion project -- within a high-priority subject area -- to commence in either 1986 or 1987, the returns from the 80 libraries show:

39 libraries are interested (among 72 libraries planning retrospective conversion).

45 libraries are definitely not interested or not able to participate at this time. (Several libraries indicated that they could not participate because of local constraints or

because local retrospective conversion projects are already underway.)

19 libraries did not respond to the question. They are presumably not interested or not able to participate.

The libraries that are interested in participating in a collaborative project listed in most cases the same subjects as ARL priorities. In a few cases special collections were identified. In other cases the library identified a subject area that is of high local interest, e.g. Southern United States history (Georgia).

III. Priorities for ARL Recon Projects

In considering the determination of priorities for the pilot the following criteria were used in choosing subjects: (1) they are representative subjects from major disciplines, (2) they include both well-defined older fields and interdisciplinary subjects, (3) they complement and expand the current RLG subject-based recon program, (4) they have potential for federal or foundation funding, and (5) libraries with strong collections indicated interest in cooperatively converting them.

In response to the question asking for recommendations for subjects to which the Association should give highest priority for conversion during 1986 and 1987, responding libraries indicated a wide range of subjects. Some libraries listed a series of subjects; others indicated only general preferences for converting older materials; still others gave no priorities but indicated an interest in participating in cooperative projects regardless of subject focus.

Analysis of these data shows that recommendations cluster around three subject areas. The highest interest is in the conversion of materials in languages and literatures grouped in P. Of equal importance to many libraries is the conversion of science materials grouped in Q. A third priority centers around social sciences disciplines grouped in H.

ATTACHMENT A

Comparison of 1985 and 1986 ARL Recon Surveys

	1985 Survey		1986 Survey	
Responses	111	94% of 118	103	87% of 118
Recon Complete	6	6% of 106[1]	14	14% of 99[1]
No Recon Plans	6	6% of 106	13	13% of 99
Have Recon Plans	94	87% of 106	72	73% of 99
Priority Collections[2]				
Class C-F	29	19% of 155[3]	7	10% of 67[3]
Class H	15	10% of 155	16	24% of 67
Class M	18	12% of 155	6	9% of 67
Class P[4]	48	31% of 155	24	36% of 67
Class Q	37	24% of 155	14	21% of 67

Notes:

[1] Number of libraries that responded to this question.

[2] Collections to which respondents gave priority for conversion; excludes five subject areas given emphasis in the Recon project and classes given low priority by respondents to one or the other survey.

[3] Number of collections to which priority was given in these classes.

[4] Excludes Slavic language and literature.

SYSTEM USED TO CONVERT RECORDS October 5, 1986

OCLC
- Arizona
- Calif., Irvine
- Case Western Reserve
- Center for Research Libraries
- Cincinnati
- Colorado
- Emory
- Florida State
- Georgia
- Illinois
- Indiana
- Massachusetts
- Massachusetts Inst. Tech.
- Notre Dame
- Purdue
- Rochester
- South Carolina
- Texas
- Vanderbilt
- Washington, Univ. of

OCLC AMIGOS
- Arizona State

OCLC DIRECT-LC
- Chicago

OCLC LC-MARC LOCAL
- Kansas

OCLC MARC/GEAC
- Maryland

OCLC RLIN
- Harvard

OCLC RLIN GLADIS
- Calif., Berkeley

OCLC RLIN MITINET
- Calif., Davis

OCLC SOLINET
- Alabama

OCLC UTLAS INHOUSE
- Missouri

OCLC UTLAS REMARC
- Virginia

ON BID
- Pittsburgh

RLIN
- Brown
- Colorado State
- Cornell
- Iowa
- Michigan
- Southern California
- Stanford
- SUNY Buffalo

RLIN INHOUSE
- Columbia

SOLINET
- Louisiana State

UTLAS DOBIS
- National Library of Canada

WLN
- Washington State

Planning Documents

UNIVERSITY OF CHICAGO 10/30/85

A Background Paper to Facilitate Planning at Chicago

A local Retrospective Conversion Committee has since been appointed by the Director and is working on proposing a program.

This paper prepared by: Richard Pollard, Asst. Director for Technical Services

Retrospective conversion, or "RECON" as it is frequently abbreviated, is, and will continue to be for some time, a topic of increasing interest both to librarians and library patrons. As more and more libraries transform machine-readable bibliographic data files into easily searched online catalogs, interest naturally turns to the portions of library collections whose manual records have not yet been converted to machine-readable form.

American libraries and librarians have been leaders in the development and implementation of both manual and automated systems for bibliographic and inventory control of library collections. Patrons have for years been accustomed to approaching an American library catalog with the expectation that a search of this one tool will provide access to most, if not all, of the particular library's resources. Now with the appearance of online catalogs the advantages of a unified bibliographic instrument for access to an entire collection are offset somewhat by the advantages of more rapid and improved access to only a portion of the collection. A logical extension from this situation is the conversion of all a library's manual records to machine-readable form, so that the advantages of enhanced search and retrieval capabilities can be enjoyed together with the advantages of having to use only one bibliographic instrument to access the total collection.

There exists in libraries today a variety of situations along a spectrum stretching from totally manual to totally automated bibliographic control systems. A desired goal of most libraries, however, independent of all other considerations such as cost, is a machine manipulable catalog of total holdings. It is ironic that libraries with smaller collections are able to achieve this goal more readily than libraries with sizeable collections of greater scholarly research potential.

Until very recently, unfortunately, there has been little coordination or cooperation between libraries engaged in retrospective conversion. Standards for bibliographic fullness and quality have varied considerably and have in many cases been determined largely by only local needs or requirements. Development of the MARC formats and the growth of the bibliographic utilities have laid solid foundations for further progress, however. Now national attention is being directed towards developing coordinated programs to make maximum use of resources devoted to retrospective conversion activities. The nation's research libraries are faced with the largest retrospective conversion tasks and the Association of Research Libraries (ARL) has begun to assert needed leadership for planning and fund raising in this area.

University of Chicago Library Situation

Where does the University of Chicago Library find itself with regard to the potential goal of having one online catalog for its total collections? We are further than some libraries, but behind many others.

As a result of pioneering endeavors in library automation, for more than ten years we have been blessed with an integrated technical processing system used to capture or create machine-readable records for currently acquired materials. The size of this local database continues to grow and now represents approximately 22 percent of the titles in the Library. Cards for these titles have also been produced and filed in the manual General Catalog (GC) so a unified bibliographic access tool could be maintained. This has resulted in requirements for parallel maintenance in manual and machine files with attendant costs and possibilities for divergence of records.

Increasing reliance has been placed upon the machine files for internal processing and reference work, and for more than a year limited direct public access has also been provided to the database. Most Library staff recognize that the limited nature of current public access to the database precludes calling it an "online catalog", but this distinction is probably not as readily understood by many users. Development efforts to improve access are currently directed towards achieving automated authority control. Once this is completed and the online authority file is linked interactively to the existing bibliographic database, the Library will have what it is willing to label an online catalog. Parallel development efforts to automate the recording of serial holdings also will eventually contribute towards improved access to library holdings.

Thus the University of Chicago Library is engaged in efforts that will culminate in an online catalog; but without further efforts this will remain a catalog to only a portion of the total library holdings. Once an online catalog is in place, the manual General Catalog will undoubtedly be closed and from this time the Library will no longer possess a unified single bibliographic access tool. (Actually, since the Crerar merge the Library has ceased to have a unified catalog. The desire to improve on this circumstance has prompted most of the limited retrospective conversion so far accomplished.)

Thus the University of Chicago Library must comprehensively address the issues associated with retrospective conversion. First it must decide if total retrospective conversion is to be a Library goal. If it is, then a plan must be developed that looks towards the eventual achievement of that goal.

Various alternative methods of accomplishing retrospective conversion exist, and the current ARL initiative in this area promises to enlarge the possibilities. Our own experience of the past few years with limited and highly selective retrospective conversion using a machine link to the Library of Congress database provides valuable experience useful in assessing alternative methods.

Planning for a more massive retrospective conversion effort must include investigation of all alternatives and especially relationships of these with costs and the quality of the desired final product. Since it seems unlikely that funding for total retrospective conversion will be secured from one source, and since even if it were the work must be executed over some number of years, the plan must include assignment of priorities based upon subject or chronological division, circulation status, or combination of these or other criteria.

A retrospective conversion plan must be comprehensive in that questions relating to priorities, standards, and methods are addressed, but also flexible so these can be readdressed with changing circumstances, so advantage can be taken of funding opportunities, and so changing technological or political realities can be accommodated. Thus the plan may never be complete, but rather exist as a broad framework into which are fitted a variety of activities over some period of years directed toward an eventual and common goal.

In the remainder of this paper I pose some of the issues and questions that must be addressed as part of the planning process and suggest possible tactics useful in the investigation and discussion stages.

Extent of Retrospective Conversion

A logical initial question is whether retrospective conversion of all existing manual bibliographic records should be a library goal. This is essentially a policy question; an affirmative response would do little more than commit the Library to implementation planning and the search for required resources. Nevertheless, the goal can be established even without firm time schedules or budget support in place. I believe establishing comprehensive retrospective conversion as a Library goal can have important psychological advantages for the Library and its staff. It would represent an overriding goal to which a variety of regular and special processing activities would be viewed as contributing, and it would serve the Library well in responding to patron inquiry about plans for putting more titles "into the machine."

Achievement of this goal will require considerable and sustained support from throughout the Library system; therefore those whose support will be needed should be involved in the policy determination process. The role of the Director is critical in this process since he will set the tone for subsequent planning and enunciate the policy goal both to the staff and the Library's various constituencies. Strategies for marshalling support for such a goal are best left to the Director's discretion, but minimally I believe Management Council and the Library Board need to be involved.

My intention in the above discussion has not been to preclude the possibility of a goal other than comprehensive retrospective conversion emerging from discussion of the issues. Whatever position the Library assumes requires detailed planning and study of alternatives. Such a far-reaching goal must have wide support since many will need to explain, defend and argue for it in and beyond the local community. Thus the process of establishing a goal and plan of action for attaining it is almost as important as the goal itself.

Statistical Data

Better information and analysis is needed about the magnitude of total retrospective conversion. A very preliminary comparison between the number of machine-readable records for fully cataloged titles and the purported size of the manual LC classed shelf list (as cumulatively adjusted in annual statistics) indicates that somewhere more than 1.3 million titles are under only manual bibliographic control and therefore candidates for retrospective conversion. All of the estimated 163,639 Crerar Dewey classed titles are also candidates.

These figures need to be verified and refined. Is the percentage of titles in machine-readable form the same for all portions of the LC classification? Would differences affect priorities for conversion? How should the more than 100,000 brief machine-readable records already in LDMS be factored into calculations about the amount of retrospective conversion required? Are separate estimates for monographic and serial titles necessary for further planning? How many cataloged titles are not included in the shelf list, i.e, analytics, particularly for monographic series classed as sets? How many titles still represented in the catalog and shelf list are physically lost to the Library? Should physical presence be confirmed before converting the catalog record?

There are undoubtedly other questions that will require answers, but the ones posed above indicate the nature of the required endeavor. Preparation of data about our holdings in technology for the current ARL supported initiative for cooperative retrospective conversion has been helpful in directing attention both to existing data and to additional data needed for further planning.

I believe that those with the most knowledge about the processes of creating manual files, both currently and historically, are best positioned to address this category of questions. A study group consisting minimally of the heads of Technical Services, Cataloging, and Serials should be charged to execute the data gathering, analysis, and documenting functions. They should be able to draw upon other resources, particularly clerical and computing support, as necessary.

Assessment of Manual Records

What is the adequacy of existing manual records for supporting retrospective conversion? In other words, what should be used as the source document in converting a title to machine-readable form? This is an important consideration both when determining if a local record matches one in a machine database, and when keying a new record from scratch. Some percentage of shelf list records are not as complete as the associated GC entry. Some GC entries do not contain a full record of added entries; the no longer maintained Official Catalog was used for this purpose. Assessment of the extent of the problems these historical circumstances would create for retrospective conversion is necessary. Again, statistical sampling might be useful. Data concerning the frequency of "partial" records in the shelf list and GC will be most helpful in selecting a best approach for retrospective conversion and planning detailed procedures.

The people best able to address this category of questions are the same as those named above in connection with other statistical gathering and analysis.

Conversion Standards

What standards should be used in judging the acceptability of machine-readable catalog records from sources other than the Library of Congress? To date the University of Chicago Library has not used "member contributed copy" for the processing of its current intake of titles. The practice may change given growing backlogs and the general improvement in the last few years in the quality of cataloging contributed to the utilities; still this question must be answered in the context of accepting non-LC cataloging retrospectively. What should be the policy for accepting a matching record in which the bibliographic description varies in fullness or "quality" from that of our manual record? Are headings to be converted to AACR2 form? To what extent should fixed field information be pursued? How should authority control over forms of names, subjects, and series be imposed or achieved? On a record by record basis at the time of conversion, or by a combination of subsequent machine and human editing? What is possible technically at the present, and what may changes likely in machine authority control make possible in the near future? How does our local development of automated authority control affect the options and possibilities?

Such issues related to bibliographic quality standards and the means of achieving consistency in heading forms in an online environment must be addressed by more than Technical Services representatives. Both interpreters of the catalog and those versed in systems capabilities need to be involved.

Preservation Issues

Should bibliographic records be converted independent of consideration of the physical condition of the pieces? Should retrospective records be created for items whose physical deterioration impedes effective use? Can conversion and conservation efforts be coordinated efficiently? How should the necessary record changes associated with reformatting material be coordinated with a retrospective conversion effort? Should the same bibliographic record be used to describe both the original and reformatted work, or should separate records be maintained? These and associated issues need to be addressed by those responsible for processing, preservation, reference, collection development, and circulation.

Conversion Priorities

With what materials should a concerted effort at comprehensive retrospective conversion be started? (Our limited efforts to date have been in the sciences, the result of needs associated with the Crerar merger and the availability of funding.) Should a subject approach be used, and if so, how should the LC (and Dewey) classification be divided and how should priorities be assigned? Should a chronological approach be used, based upon imprint date? ("Second system" LDMS records date from about 1974; MARC records for English language titles have been created by LC since 1968. Thus there is a high likelihood for considerable matching of 1968-1974 British and domestic imprints.) Does a chronological approach better meet user expectations and use of an online file? Would a conversion strategy based upon what circulates better serve patron needs? (Analogy with strategy for barcoding the collection.) Should different emphasis be placed on serials than monographs? (To some extent this has already been done with the creation of brief machine records for all active serials in support of creating the serials microfiche product.) Should the upgrading of existing brief serial records be given a higher priority? What approach is best for those inactive serial titles currently without any machine record?

These issues definitely require investigation by more than Technical Services. Strategies that best meet public services needs and that are also cost effective procedurally need to be devised. Needed is a conversion strategy that is comprehensive in its coverage, that can be rationally and fairly easily explained to the user community and funding sources, and that contains sufficient flexibility to permit the Library to respond to funding opportunities with "break out" packages. These are not easy tasks, but they are very necessary ones. The issues must be widely discussed during policy development in order to gain the widest possible acceptance both within and without the Library.

Procedural Strategies

How can retrospective conversion be accomplished so that acceptable quality standards are maintained, so that the final machine product is at least the equal of its manual predecessor in utility, and at a cost that is affordable? When is it best to rely upon existing machine-readable records available elsewhere and when best to convert by coding and keying from the manual record. Can a bibliographic utility (e.g, OCLC) be used effectively? Are commercial databases such as REMARC an acceptable source of records? What is the expected "hit rate" of acceptable records using different strategies? How will the ARL recon initiative be useful?

A very important difference between a bibliographic database such as LDMS and an online catalog is the presence in the latter of cross references. Cross references are a product of authority control in either a manual or an online environment. Prospective authority control for the Chicago online catalog is under development. How will it be achieved retrospectively as manual bibliographic records are converted? How can the information on existing cross references in the GC be transferred to the online catalog? The Library of Congress authority files as supplemented by NACO participants will provide some assistance in bringing retrospectively converted bibliographic records under authority control. It seems unlikely, however, that this file will include all the headings and associated references already established in our local manual authority file. Does this argue for retrospective conversion of the Chicago authority file in advance of or in tandem with the retrospective conversion of the manual bibliographic records? Are there alternatives?

These questions cannot be addressed independently of the issues relating to standards and priorities; to a great extent final choices about alternative procedural strategies will be determined by the decisions that emerge from those investigations and discussions. Wide involvement is therefore necessary. Parallel with this, and in support of informed discussion, information about the extent of available bibliographic databases, the quality of the records, and an estimated "hit rate" can be gathered, analysed, and documented by the Technical Services Division.

Next Steps

In this paper I have posed numerous questions and discussed some of the issues associated with comprehensive retrospective conversion. I have also suggested some positions or constituencies in the Library that must have involvement with different aspects of the retrospective conversion topic.

How best can the effort be organized? Can the method utilized in considering the Library's approach to implementing AACR2 serve as a model? Or the more recent method used in investigating possible membership in RLG? Questions relating to the most effective method of organizing the required investigations need to be addressed before much further work can be done. Perhaps this topic should be placed on the Management Council agenda for a directed discussion. If that approach is chosen, this background paper should be distributed sufficiently far in advance to permit prior review and thus, one would hope, a better informed discussion.

VIRGINIA POLYTECHNIC INSTITUTE

9 June 1986

To: Task Force on the Future Organization of Technical Services*

From: Jo Ann Day
Marilyn Norstedt

Re: Retrospective conversion/cataloging priorities

Retrospective conversion

Retrospective conversion, as used in this report, refers to the conversion to full MARC records of materials already cataloged in the Tech libraries. This includes titles with short records in VTLS.

A. Upgrade short monographic records in VTLS to full MARC.

There are about 200,000 records in this category. The bulk of the upgrade can be handled by a vendor, such as SOLINET, who would run VTLS tapes against a large database, such as OCLC.

1. Advantages

   a. A substantial number of records could be upgraded at a cost much less than that which would be accrued by performing the project in house.

   b. The basic project could be completed in a relatively short period of time.

2. Disadvantages

   a. A significant number of records will have no hits, either because they are not in the vendor's database or - as is more likely - because the VTLS records to not have the requisite linkages.

   b. Even when the vendor's obligations have been fulfilled, the cleanup job will be significant. Not only must some records be upgraded, but straightening out resulting authority conflicts will also be a project of some magnitude.

B. Convert all serial records to full MARC, with holdings.

Current serial records are already in various stages of conversion in the RECON and holdings projects. VTLS can identify those serial records in the system requiring updating. A machine upgrade of these records is not recommended because of the changing nature of the records and the problems with linking entries.

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*The list does not deal with the more than 300,000 titles in our collection which have no short record in VTLS, are not reference books, PZs, Zs or serials.

When the records in VTLS have been upgraded, a sweep of the shelf list could be made to include all other serials held by the library.

1. Advantages

    a. The project is already underway.

    b. The advantages for reference librarians and patrons (including Interlibrary Loan) would be significant.

2. Disadvantages

    The project would require a large commitment of staff, time, and money.

C. Convert the reference sections of the four reference departments.

Because reference books do not circulate, each department's reference collection contains materials that may be heavily used but are not in VTLS.

1. Advantages

    a. Improved user access to reference materials.

    b. Elimination of card files hidden behind reference desks.

    c. Possible weeding of reference collections.

2. Disadvantages

    1. The project cannot begin until the reorganization of the public service units is complete.

    2. Commitment of staff time in public services as well as technical services would be required.

D. Complete the conversion projects already begun or planned.

Two projects have been identified: the PZ conversion and the recataloging of the Zs. The PZ conversion brings together the works of those authors whose output has been divided between PZ and the appropriate literary number. The Z recataloging is designed to move subject bibliographies into the appropriate subject classification.

1. Advantages

    a. One project is already underway (PZ); the other has long been discussed as was scheduled to begin in at least one reference department.

    b. The PZ project is important for user access in the humanities.

   c. Implementation of the Z project will bring bibliographies into the main collection. It will also allow for weeding the Zs, which will free up shelf space.

2. Disadvantages

   a. The PZ project benefits only a certain group of users.

   b. Do librarians really care about the Zs?

Cataloging priorities

Under this heading we are including materials held by the library but without public catalog records of any kind. These are the categories considered by the Committee on the Online Catalog: Phase II, and were addressed in the committee report.

Because three years have passed since the report was issued, some of the implementation schemes no longer seem viable - the use of SPIRES, in particular, stands out in this regard. However, most of the committee's recommendations have borne the test of time, though the prioritization bears the mark of personal influences brought to bear.

The following is based both on the committee's report and on personal interviews conducted with staff in Newman and the branches.

A. Government documents

Documents not falling into the retrospective conversion activities listed above should be given priority for cataloging if this library is to be a true depository. The pros and cons of this issue have already been discussed by the Task Force.

B. Microform collections

Cataloging for major microform collections is available through OCLC. We have purchased the tapes for *Three Centuries of English and American Plays*, and have added about 1000 of these records to the VTLS database. The adding of records was stopped because of a problem with repeating 090 fields. We encourage an analysis and resolution to this problem on the part of the Systems Office. Two additional sets recommended for purchase by reference librarians are *Early American Imprints* and *Health, Physical Education, and Recreation*.

1. Advantages

   a. We own the second largest microform collection in the country. Without access, the collection is useless.

   b. Purchasing cataloging on tape is cheaper than doind look-ups for each individual title on OCLC.

2. Disadvantages

   a. There are technical problems with running the OCLC tapes into the VTLS database.

   b. Authority conflicts will require staff time for resolution.

   c. Costs might be prohibitive, considering the number of collections owned by the library.

C. Maps

Librarians in Social Science and General Reference gave maps a high priority. The details of the map project are included in the Phase II report. Cataloging cost seems to be the biggest obstacle, although there are over 200,000 MARC map records in OCLC.

D. VPI publications/Special Collections materials

Because Special Collections is open only a limited number of hours, reference librarians find that user access to materials held there is very limited. The internal control of VPI publications is on a system that cannot be accessed by anyone outside of Special Collections.

E. Architectural materials

1. Architectural drawings relating to Virginia Tech, including the University Master Plan, the plan of Newman Library, and other VPI buildings are frequently asked for.

2. Architectural slides. The only slides presently cataloged are those provided by Pigeon Audio Visuals. The staff member who handles slides estimates there are 27,500 uncataloged slides in the Architecture Library.

A PROPOSAL FOR AN
ONLINE CATALOG REVIEW AND
RETROSPECTIVE CONVERSION PROJECT

Abstract: A proposal in the amount of $191,425 to inventory, label and convert approximately 75% of the titles held by the libraries which are not in machine readable form; to review and edit the newly loaded catalog database; and, thus, to further prepare and enhance the online catalog.

The Jean and Alexander Heard Library System is in the process of implementing an online integrated library system. One of the most significant products of this system will be an online public access union catalog. All records of library materials which are in machine readable form, created over the last ten years, will be included in the online catalog. Two major projects of a retrospective nature must be completed, however, before the catalog can adequately serve its purpose.

Currently the libraries have more than 500,000 bibliographic records, but this represents only about 57% of the entire collections. The major effort, and investment, remaining is the conversion to machine readable form of the records for the rest of the collections. Without this conversion, an ongoing commitment to the maintenance of the several card catalogs will be necessary. Library users will find it necessary to use both the online and card versions of the catalog. Studies in other libraries have shown that a search of both is not a realistic expectation of library users. Thus, large portions of the collection will likely not be known to patrons--a significant waste of existing library resources. Any investment in this conversion of bibliographic records to machine readable form is a permanent one and is not dependent on the particular system installed. Since the records adhere to existing national and international standards, the costs of conversion are one time only costs.

Libraries spend a significant amount of their ongoing costs each year on maintenance of the card catalog to reflect changes in the collection, changes in national standards and changes in names and terminology. The same will be required of the online catalog, but maintenance should be faster and easier to accomplish. The 500,000 bibliographic records which will form the database will require some review and maintenance. Many of these records were originally created before there was the expectation that they would be a part of an online catalog. Once created, these records were not available for review and editing but existed only in archival tapes with OCLC and SOLINET. In preparation for the online catalog, a significant amount of reconciliation of the database with national authorities has been completed by an outside vendor. Local practice and accurate holdings information will now need to be reviewed to ensure accuracy of the catalog. Continuing and future maintenance will be performed as a part of regular technical services responsibilities.

SCOPE

All remaining materials in the collection are not included in this proposal: analytic bibliographic records can best be done once the catalog is closed; the Medical Center Library is pursuing its conversion in house; music and scores can be handled internally. Following is a breakdown of the gross number of titles to be converted:

Central/Science (incl. documents)	205,385
Divinity	6,400
Education	82,325
Law	31,738
Music	10,300
Total	336,148

In addition to the actual conversion of the bibliographic records to machine readable form, an inventory and labeling of the collection are included as an integral part of this project proposal. A sampling inventory of the Dewey (unconverted) collection in the Central Library showed a possible loss rate of 15%; conversion of these titles would not only be expensive (well more than the cost of doing the inventory) but certainly misleading in our online catalog. Bar code labeling of the collection can be accomplished at the same time as the inventory so that it will not be necessary to do the labeling as a separate project.

RECOMMENDED APPROACH

Inventory and labeling--The labeling project planned for this summer will accomplish bar coding of those parts of the collection which are already in machine-readable form. This project is a massive one; our plans call for hiring 60 students to work through the summer. In order to attract people for this effort we need to begin their employment soon after school lets out; however, the labels will not be ready until July. In the interim, the inventory and labeling of the unconverted collections could be accomplished. Without such an additional project, we would have difficulty finding the kind of workers we need.

Retrospective conversion--Several alternatives are available for the actual conversion of the machine records. The approach we propose will provide us, within a year, with machine readable records for 70-80% of the remaining collection at a fraction of the estimated total cost for conversion of $1.2 million. This large proportion of the collection will already have machine readable records in the OCLC online union catalog which we can claim for our own and to which we can add necessary local information. The project will make use of the MicroCon service offered by OCLC. They will provide microcomputer equipment for entry of search keys and local information. These records are then passed by the OCLC database, records claimed and holdings symbol attached, and converted records returned to us on tape.

The most expensive part of the remaining conversion will be for those titles which were not matched and need to be handled in-house because of the complexity of the records and the holdings information which needs to be included in the record. Once the MicroCon project is complete we will have a better idea of the extent of the remaining work and we will then be able to propose a project for completion of the conversion. These records will be relatively unique and support from external sources for their conversion may be a more likely possibility than for the collection as a whole.

Database review--Systematic review of the database and of various finding aids, problems noted in the labeling process, and review of contractor provided exceptions from the authority control project will generate information about editing requirements. Review of special shelf lists (Reference, for instance) in some of the libraries will allow specific location information to be added where it is not available now. These activities will be carried on throughout the year by the technical services staff.

TIME FRAME

Inventory and barcode labeling will be performed this summer. Initial data entry for the 368,000 titles will be completed using students and part-time workers from September through February of 1986. Follow-up and review of these retrospective records will be done from March through June. The review of the initial database will occupy the entire fiscal year.

COSTS

Costs for inventory, labeling and retrospective conversion keying of search keys are based on OCLC estimates and other library's experiences. They do not include overall project supervision which will be handled with existing staff.

Inventory:	368,026 titles @ 50 titles per hr X $3.35/hour.	$ 24,658
	Supervision and problem resolution--1842 hours @ $4.00/hour	7,360
		$ 32,018
Labeling:	685,000 volumes @100 titles per hour X $3.35/hour.	$ 22,948
	Supervision--1712 hours @ $4.00/hour.	6,850
	Labels--685,000 triple @ $58.68/1000	36,520
		$ 66,318
MicroCon Conversion: 368,026 titles		
	80% hit rate--294,421 @ $.40 per hit	$ 117,768
	Keying @ 60/hour--6134 hours $4.00/hr.	24,536
	Supervision .1 FTE LA 3	2,100
		$ 144,404
Database review		
Monographs	1.0 FTE Librarian	$ 24,670
	.5 FTE LA 3	6,700
Serials	.5 FTE Librarian	10,960
	.5 FTE LA 3	6,355
		$ 48,685
GRAND TOTAL		$ 291,425
Less $100,000 set aside for Law, Music		100,000
PROJECT REQUEST		$ 191,425

A Preliminary 10-Year Plan for Conversion of Catalog Records for the Libraries Collections

Prepared by:

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May 27, 1986
(revised)

Outline

- I. Summary Cost Estimate
- II. Introduction
- III. Materials Represented in the Main Catalog
  - A. Summary Status of Existing and Previous Conversion Activities
  - B. Priorities for Conversion of LC Materials Based on Class Ranges
  - C. Magnitude of Conversion
    - 1. LC Materials
    - 2. Dewey Decimal Shelflist
  - D. Model and Estimated Costs Using RLG Experience as a Base
  - E. Other Methods for Conversion of Records in the Main Catalog
- IV. System Requirements
- V. Summary

I.

CSU LIBRARIES
Summary Sheet
Action Plan to Implement
10-year Conversion Program for Bibliographic Records in CSU Main Catalog
(excluding local system resources)

1986/87	$27,200	The CSUL main catalog contains an estimated 220,000 records that are not in machine-readable form. This cost estimate assumes conversion of 22,000 records per year using RLIN and local staff as the means of conversion.
1987/88	$28,575	22,000 records converted during year
1988/89	$30,000	22,000 records converted during year
1989/96	$300,000	154,000 records converted

II. Introduction

Colorado State University Libraries (CSUL) has traditionally provided bibliographic access to its holdings primarily through two major catalogs. These are the main catalog and the Monthly Catalog of United States Government Publications. The main catalog is a card catalog and contains records for CSUL materials classed according to the Library of Congress (LC) classification scheme. The main catalog also contains records for those materials in the Dewey Decimal classification scheme and for a small number of federal documents classified in the Superintendent of Documents (SUDOC) classification scheme. As of March 1986, the records in the main catalog provide bibliographic access to over 1,000,000 cataloged, printed volumes, over 100,000 microform units, and a smaller number of other materials in the CSUL collections. The Monthly Catalog of United States Government Publications (MOCAT) is a book catalog published at regular intervals by the United States Government Printing Office. CSUL receives approximately 90 percent of the depository items listed in MOCAT. CSUL also collects federal documents not listed in MOCAT. As of March 1986, CSUL's U.S. documents collection contains approximately 420,000 printed volumes and over 1,000,000 microform units.

For many decades library users seeking bibliographic information about CSUL's collections have relied on manual records of one kind or another. With the recent purchase of NOTIS software to form the basis of an online catalog, CSUL may soon provide bibliographic access to its collections, not through card and book catalogs, but rather through CRT terminals accessing an online data base. The data base will include machine-readable catalog records. With appropriate telecommunications and hardware, access to the catalog can be available at terminals throughout the campus.

The level of service available through an online catalog depends, in part, on the percentage of the library's collection represented in the records of the data base. As noted in greater detail later in this report, CSUL already has a significant number of machine-readable records for items represented in the main card catalog and is currently continuing to convert a portion of the large number of remaining manual records. Moreover, the Government Printing Office has, since 1976, based MOCAT on machine-readable catalog records. The MOCAT records, known as the GPO tapes, are available for purchase by libraries wishing to process and load these records into local catalogs. CSUL estimates that at present approximately 175,000 MOCAT records are available for documents in the CSUL collection.

The remainder of this plan focuses on the conversion of manual records in the main card catalog. A proposal for the acquisition, processing, and loading of GPO tapes is being prepared by the Documents Librarian and will be available for review by the fall of 1986.

III. Materials in the Main Catalog

III. A. Summary Status of Existing and Previous Conversion Activities

CSUL has created machine-readable catalog records for newly-acquired titles since 1977. Approximately 145,000 records have been created in this way. There have also been a number of projects to convert old manual records. Up to now more than 39,000 records have been converted.

The first project, started January 1980, was to reclassify fiction in English from the PZ schedule of the LC Classification to the literary author schedules, chiefly PR and PS. Although the primary goal of this low-priority project when it started was reclassification, it has become a conversion project as well. To date about half of the 21,000 fiction titles have been reclassified by regular staff, processing anywhere from 800 to 2,100 titles a year. This has been done an hour here and an hour there as time permits.

The second project was funded by the Colorado Union Catalog, using LSCA monies, for the period January -- June 1982. CSUL obtained $17,999 to support in part the conversion of up to 8,000 records (5,400 CSU theses and dissertations and 2,600 water resources publications). During the funded period two temporary catalogers assisted regular staff working on the project. During the following year, July 1982 — June 1983, regular staff continued the project, completing the conversion of records for all local theses and dissertations, and 1,302 water resources publications.

In the summer of 1985 the Research Libraries Group approved CSUL participation in its Cooperative Retrospective Conversion Program for the year starting September 1985. We received reimbursement for much of the expense of converting up to 18,647 records in social sciences and agriculture, including specific class ranges in agricultural economics and natural resources development. Four half-time temporary assistants and one quarter-time student assistant joined regular staff in working on this RLG project. By the end of February, 1986 all of the specific class ranges had been converted, for a total of 18,518 records.

In February, 1986 CSUL applied to RLG for an extension of funded participation in the Cooperative Retrospective Conversion Program to include 5,000 records in science and technology. In March RLG approved the application, and we started the extension project, continuing to utilize the temporary staff already with us.

Also in February, 1986, we requested RLG authorization to continue conversion of social sciences cataloging records, especially in social development. This request is for authorization to use the RLIN data base at the lower recon rates, but does not involve reimbursement for labor and other costs. In February recon staff started to convert records in this subject area, in anticipation of authorization approval from RLG.

The following table shows in summary the number of records converted in project to date:

Fiction Reclassification, Jan. 1980-Mar. 1986	approx.	10,000
CUC Project, 1982-Jun. 1983		6,588
RLG Cooperative Recon, Sept. 1985-Feb. 1986		18,518
RLIN Conversion in Soc. Sci., Feb.-Mar. 1986		4,249
	TOTAL	39,355

III. B. Priorities for Conversion of LC Materials Based on Class Ranges.

In the last six years we have undertaken a number of conversion projects. Records were selected for conversion in a number of ways, but always based on conversion of blocks of materials in a particular file, usually the shelf list. This has the advantage of minimizing project costs, because the shelf list record is a master record that can be directly used in preparing the input record. Other libraries almost universally use their shelf lists for conversion, and the phrase "shelf list conversion" has become synonymous in library literature with "retrospective conversion."

Based on our experience, we recommend the following ways to establish priorities for future conversion of class ranges in the shelf list:

1. Subjects for which we can obtain outside funding to convert. An example might be the Agriculture Project proposed by the Association of Research Libraries.

2. Subjects identified by the CSUL Collection Services Division as being areas of strength in research and training.

3. Blocks of materials for which, because of various reasons, it would be specially advantageous to have all of the records in machine-readable form in the online public access catalog.

III. C. Magnitude of Conversion of Library Materials

1. LC Materials

As of September 1, 1986 there will be approximately 220,000 titles in the LC shelflist that remain to be converted to machine-readible format. The breakdown in the LC classifications is listed in the following table. The TOTAL TITLES is the count of the total number of titles per classification including all RLIN/OCLC TITLES and MANUALLY-produced TITLES. The RECON TITLES includes the count from the RLG Retrocon Project (Sept. 1985-Feb. 1986) plus the 1986 Recon Project. The RECON TITLES subtracted from the MANUAL TITLES leaves the TITLES LEFT TO BE CONVERTED. At the end of the table is listed the total for the CUC Recon Project which covered multiple class ranges. Also subtracted is the estimated total for the current RLG Sci-Tech Recon Project and other 1986 recon work leaving a total of 220,000 titles to be converted.

The methodology used to arrive at this count is based on a physical count of total inches of shelflist cards. For each classification range, a selected sample of cards was actually counted. The number of cards per inch and the percentage split between RLIN/OCLC cards and manually-produced cards were used to derive the card totals. This table is a summary statement; William Lindgren, Catalog Librarian, has a more detailed breakdown of the shelflist count.

2. Dewey Decimal Shelflist

CSUL changed from Dewey Decimal Classification to Library of Congress Classification in July 1960. Although the great majority of pre-1960 materials were reclassed into LC Classificaton, approximately 13,175 titles still remain in Dewey Decimal. Many of these titles are scattered throughout the classification, but there are several concentrations of materials: 378s representing CSU theses; the 330s and 340s representing chiefly the law titles left because the LC law classifications did not appear until the 1970s and are still not complete; and the 630s representing agriculture.

These materials should be considered low priority materials because of their age, the extra conversion problems they represent and the increased costs involved in recon work. It is suggested that they be added to the LC Recon Project at its end and after the online catalog is operational. There will then be no need to order cards on RLIN, except a shelflist, and no refiling of these cards back into the card catalog. A weeding project would be appropriate in conjunction with the Dewey recon project.

LIBRARY OF CONGRESS SHELFLIST

CLASSIFICATION		TOTAL TITLES	RLIN/OCLC TITLES	MANUAL TITLES	RECON TITLES	TITLES LEFT TO BE CONVERTED
A	(General)	1,659	597	1,062		1,062
B	(Philosophy/Religion)	22,520	7,206	15,314		15,314
C	(Auxiliary Sciences)	2,094	754	1,340		1,340
D	(History: Europe, Asia Africa)	25,312	7,340	17,972	3,361	14,611
E	(History: US)	11,932	2,148	9,784		9,784
F	(History: Americas, Local US)	10,399	3,536	6,863	2,436	4,427
G	(Geography, Anthropology, Recreation)	10,660	3,518	7,142	91	7,051
H	(Social Sciences)	49,647	18,866	30,781	14,658	16,123
J	(Political Science)	7,595	2,430	5,165		5,165
K	(Law)	3,998	1,919	2,079		2,079
L	(Education)	12,691	4,569	8,122		8,122
M	(Music)	7,546	3,245	4,301		4,301
N	(Art)	11,588	3,476	8,112		8,112
P	(Literature/Language)	94,596	30,969	63,627		63,627
Q	(Science)	48,100	20,683	27,417		27,417
R	(Medicine)	19,967	6,988	12,979		12,979
S	(Agriculture)	19,296	8,763	10,533	2,221	8,312

- LC 2 -

CLASSIFICATION	TOTAL TITLES	RLIN/OCLC TITLES	MANUAL TITLES	RECON TITLES	TITLES LEFT TO BE CONVERTED
T (Technology)	32,238	12,895	19,343		19,343
U (Military Science)	1,826	566	1,260		1,260
V (Naval Science)	415	129	286		286
Z (Library Science, Bibliography)	10,915	4,366	6,549		6,549
TOTALS	404,994	145,963	259,031	22,767	236,264
			CUC PROJECT	+ 6,588	- 6,588
			TOTAL	29,355	229,676
			ESTIMATED CONVERSION, Apr.-Aug. 1986 (Sci.Tech. and Soc.Sci.)		- 9,696
			TOTAL		220,000

DEWEY DECIMAL SHELFLIST

CLASSIFICATION	LC EQUIVALENT	TOTAL TITLES
100s	B, Z	125
200s	B-BX	200
330s	J-JX	1,400
340s	K-KZ	1,350
378	*	3,500
380s	HE, HF	200
390s	GN, GT	200
400s	P-PT	100
540s	QC	550
550s	QE	250
570s	QH	300
580s	QK	450
590s	QL	350
600-619	R-RZ, T-TX	100
620s	T-TX	1,050
630s	S-SK	2,200
640-699	T-TX	850
	TOTAL	13,175

* CSU theses would go into all LC classifications

III. D. Model and Estimated Costs Using RLG Experience as a Base.

Cost Calculations

Cost estimates are based on use of the RLIN system and are calculated using experience from the RLG project as a basis.

The computer work is performed by Data Entry Operators working half time. A student assistant prepares the incomplete shelf list cards and pulls serial cards for editing by the serials catalogers.

The Data Entry Operators input an average of 11 records per hour. Each monograph title is searched in the data base and a record is created or derived as required. On records that are derived a minimum of editing is performed.

For the purpose of these estimates certain costs have been excluded because they are being absorbed by the Catalog Dept. budget. Excluded from the estimates are the problem solving, editing and supervising done by catalogers. Also excluded are the overhead costs for equipment and supplies.

Project scope is estimated at 220,000 records. This figure excludes the number of titles that will be converted in the present project that will last until Sept. 1. For purposes of this report the 220,000 has been divided by ten to plan on the conversion of 22,000 records per year for ten years. Cost estimates are included for three years.

Labor Costs

Data Entry Operator

11 titles/hr. at $6.63 = $.603 per title

22,000 x $.603 = $13,266 for 22,000 titles

Student Assistant

Preparation costs estimated at 12 hrs. per 1000 titles to be converted

12 hrs x $4.28 = $51.36

$51.36 - 1000 = $.051 per title

$.051 x 22,000 = $1,122 for 22,000 titles

RLIN costs for 22,000 titles based on current information and using the hit rate of 80 per cent experienced in the RLG project:

RLIN Costs

4,400 original records to standard (Peak or off-peak)		$ 0
17,600 records derived, not upgraded (off-peak) at $.50 each		8,800
CPU utilization at .496 seconds per record at $.232		2,532
Tape at $.068 per record		1,496
Total for 22,000 records		$12,828
cost per record	$.583	
Total costs including labor and RLIN charges		$27,216
cost per record	$1.24	

Staff Requirements

Data Entry Operators

11/titles per hr. x 1410 hrs./FTE yr. = 15,510 titles/yr.

22,000 - 15,510 = 1.41 FTE

Student Assistant hours

12/hrs. per 1000 x 22 = 264 hours

Three Year Operating Costs

Costs are assumed to rise five per cent each year

first year	$27,216
second year	$28,577
third year	$30,005

Note: The RLIN costs are calculated with the derive records done at off peak RLIN hours at the rate of $.50 per record as opposed to the peak rate of $2.13 per record. Any substantial use of peak hours would require an adjustment to reflect those charges.

III. E. Other Methods for Conversion of Records in the Main Catalog

There are numerous vendors that offer services for retrospective conversion of catalog records. The following information on types of vendor services, and on specific vendors, is based on Chapter 4, The Vendors, in "Sources of Machine-Readable Cataloging and Retrospective Conversion", by J. McQueen and R. W. Boss, Library technology reports, v. 21, no. 6, Nov.-Dec. 1985, p. 635-732.

Types of Vendor Services

1. Full Service Online Conversion

   With full service online retrospective conversion, the library sends either its shelflist or a copy (paper, microfilm, etc.) to the vendor whose staff do all the work online. All cards are searched against the vendor's online data base. Hits (or matches) are edited according to the library's specifications, and local data is added (i.e., call number, holdings, locations). Non-matches are either input as original cataloging by the vendor staff into the data base, or returned to the library to be processed. All input records are put out to magnetic tape to be used by the library, i.e., to be loaded in a local online data base.

   Depending upon the specifications determining the level of vendor editing, the online record could match exactly the shelflist card.

   Of all the types of vendor services, full service online conversion by a vendor would entail the least in-house cost. The minimum library activity could be boxing up the shelflist to send to the vendor. Other possible costs would be for copying the shelflist, preparing a listing of the shelflist cards sent for comparison to the returning shelflist, or local editing of problem no-matches.

2. Batch Offline Conversion Service

   The batch method differs from the full service conversion in both the information sent to the vendor and the procedure the vendor uses for processing. The library sends search information to the vendor in coded format, (i.e., a list of LCCN, ISBN numbers or a vendor established number) instead of the full shelflist. Local data is also sent. Information is sent on diskette, OCR format, or on tape. The codes are run against the vendor's data base in a batch mode. Matches are put to tape with local data added. Non-matches and multiple hits are usually printed for further library work.

   In most cases there would be some loss of unique local information on the manual record.

More in-house expense and time would be required of the library. All shelflists would have to be keyed with the numeric search key and local data. Sometimes the library would be required to buy the vendor's file of bibliographic records for matching with numeric search keys.

3. Other vendor services

There are other types of vendor conversion services offered. Some vendors provide online access to their data base similar to the RLIN service. Another variation is for the vendor to sell the data base to the library which then uses its own hardware and software to create a recon data base file.

To date, CSUL has used RLIN to convert records in its main catalog because equipment has been available, staff is knowledgeable concerning RLIN use, and grant funding has been received to support some of the work. As CSUL proceeds with conversion efforts, it will continue to study conversion strategies and technologies and, in particular, the cost and service effectiveness of different approaches. The RLIN model has worked and can be used as a comparison with alternative methods.

IV. System Resources

A comprehensive conversion of catalog records will require significant system resources including storage and hardware. If, for example, a ten-year effort resulted in the creation of 220,000 catalog records and attendant authority records, the required file space would be approximately one billion bytes of storage. (This would not include storage requirements for records for new titles or for documents added during the period.) Other system requirements would undoubtedly result from a conversion program. These requirements could include loading programs, CPU memory, and disc drives. Ongoing analysis and cost estimates for these requirements will, of course, be necessary. It is assumed that conversion of main catalog records can occur for three years without upgrades to the existing NOTIS system.

V. Summary

CSUL has created approximately 145,000 catalog records since 1977 for newly-acquired titles. Although CSUL has made progress in converting retrospective catalog records (39,000 as of March 1986), approximately 220,000 manual records in the main catalog are yet to be converted. Our experience with RLIN suggests that a ten-year conversion of records in the main catalog in equal yearly segments would cost an approximate total of $385,000 excluding local system costs.

As access to a CSUL online catalog becomes available to faculty and students at terminals in the Libraries, offices, dorms, and additional remote locations; the value of an online data base of the Libraries collections will grow. A comprehensive program for the conversion of catalog records to speed development of that data base will be a beneficial service to scholars throughout the university community.

Record Conversion in the Cornell University Libraries
A Report to the Acting University Librarian

By the Working Group on Conversion

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SUMMARY OF RECOMMENDATIONS:

The Cornell University Libraries should:

1. Establish as a goal conversion of all records in all collections.
2. Appoint a group to develop a conversion plan by April 1986 and to oversee and coordinate the conversion effort.

Record conversion, the conversion of bibliographic records from card to machine-readable form, has been taking place in the Cornell University Libraries since the Libraries became one of the original participants in the CONSER (CONversion of SERials) project in 1975 and began converting records. Two years before, Cornell had joined OCLC and was creating machine-readable records for most newly cataloged items. Since 1975, conversion activity has grown and expanded. In 1985, there is a need to plan and coordinate these efforts so that users of the library system gain the maximum benefit from the conversion effort.

SERIALS CONVERSION

Because of Cornell's commitment to CONSER, conversion of serials records has been a major conversion objective.

- Between 1975 and 1979, 59,000 records for currently received serials were converted with funds from a variety of sources.

- A three year project, funded by NEH, to convert all 24,000 records for non-current titles in the humanities began in 1984.

- A second project, to end in December 1986, supported by funds remaining in the Mellon Foundation collection development grant, will convert 5,000-8,000 records for non-current serials in the sciences and social sciences.

At the end of these projects, there will be 20,000 records remaining to be converted in the sciences and social sciences.

NON-SERIALS: PAST PROJECTS

There have been several projects for the conversion of non-serial records.

- Between 1978 and 1980, 8,000 records for titles in the Icelandic Collection were converted with funds from NEH. Total conversion, recataloging and reclassification of the collection were intended but not achieved, and 14,000 records remain to be converted.

- During the same period, 9,200 records, representing all the titles in the Hotel Library, were converted with funds from the School of Hotel Administration.

- A project that ran from 1978-1981 involved the conversion of over 110,000 records for titles that were part of standing order monograph series. Unlike all previous conversion activity this work was done by an outside agency, the New York State Library, with funds from a Title IIC grant.

- New York State through grants to SUNY units funded Mann Library's 1979-1981 conversion of 12,700 records for monographs. Nearly all records in LC classification QK (Botany) and some in LC classification SB (Plant Science) were converted.

•In 1982-1983, 1,900 records for master negative microfilms were converted as part of an RLG funded preservation project.

NON-SERIALS: CURRENT PROJECTS

There are several projects currently underway.

•At the end of 1983, a Title IIC project to convert 45,000 records representing all the unconverted titles in the ILR Library began. This was the second project done outside the Libraries, in this case by two vendors, Carrollton Press and Saztec, but for the first time the records were not converted directly onto the system currently being used for cataloging. These records are to be tape loaded into RLIN when the project is concluded.

•In September 1984, Cornell's largest conversion project began, involving 220,000 records for monograph titles in selected LC classifications Q-T (Science and Technology). This three year project is directed by RLG using funds received from several foundations. The funding is being supplemented by Cornell's Pew Foundation automation grant. By December 31, 1986, 165,000 records will be converted, including all monographs in the Physical Sciences and Mathematics libraries and many in Engineering, Veterinary Medicine, and Mann. For the final segment of this RLG project, January-August 1987, local funds matching the current Pew grant support will be needed to convert the remaining 55,000 Q-T records.

•A one year Title IIC project to convert 4,500 records in ornithology began in January 1985.

•22,000 Olin and Fine Arts records for monographs in LC classifications NA and ND (Architecture and Painting) will be converted between July 1985 and December 1986 in a project directed by RLG.

•Finally under RLG sponsorship 11,000 records in LC classification JX (International Law) in Law and Olin will be converted by September 1986.

PROPOSALS PENDING

•Cornell is participating with the University of Michigan, the University of Pennsylvania, the University of California, Berkeley, and Columbia University in a joint proposal for a Title IIC grant from the Department of Education. If the proposal is accepted, 24,000 records in LC classification PS (American Literature) in Olin, including Rare Books, will be converted between October 1, 1986 and September 30, 1987.

• A proposal has been submitted to NEH to fund conversion of 9,000 records in the Dante Collection between July 1, 1986 and June 30, 1988. The titles involved were acquired prior to 1945 and are in the Harris classification. They will be recataloged and reclassified. At the end of this project, 2,000 records for titles acquired between 1945 and 1976 would remain to be converted.

•A Title IIC grant is being sought by Mann Library for cataloging and record conversion in the area of Chinese agriculture. If funded, the project will provide for the conversion of 500 records for material that was transferred from the Wason Collection to Mann.

•Under the auspices of the ARL program for national coordination of record conversion projects, Mann Library, as Cornell's representative, has joined with several other universities in seeking a joint grant to convert records in LC classification T (Technology). If funded, the project would support the conversion of approximately 10,000 titles in Mann, but would have to be coordinated with the ongoing Q-T conversion supported by RLG.

PROJECTS SUMMARY

A table summarizing conversion projects is appended to this report.

When current projects are completed, Cornell will have converted 475,000 records during the period 1975-1986, 68% in-house and 32% through outside agencies. Based on the 1973 and 1977 National Shelf List Counts, an estimated 1,280,000 records will remain to be converted.

NEED FOR PLANNING

It should be clear from the discussion above that until now, record conversion has taken place without system-wide coordination and planning; in some cases the priorities have been set by outside funding agencies. As a result, neither library patrons nor the staff will have an easy time understanding what is in the online catalog and what must be searched in the card catalogs. Records for all of the humanities serials will be in machine-readable form, but there will be few records for humanities monographs published before 1970. At the same time, most, but not all, of the records for science and technology monographs will be converted, but not the records for science and technology serials that ceased publication before 1970. Some of our collections will be totally converted, others will have varying numbers of records in machine-readable form.

The lack of a system-wide plan for record conversion also makes other planning more difficult. For example, the future of the Basic Union Catalog in Olin Library is dependent upon whether conversion will be total or partial. Planning for future service patterns and terminal placement as well as the utilization of space in Olin are also affected by the disposition of the union catalog. In another area, planning for an automated circulation system is directly tied to the amount and timing of conversion efforts in the various library units. Since the bibliographic database plays such a central role in the Libraries' future, plans for conversion should be in place and well understood so that they can be used to inform other planning efforts. It is important that we come soon to a clear understanding of what our long-term goals are regarding record conversion and develop a strategy to achieve these goals.

RECOMMENDATION

We recommend that the Cornell University Libraries convert all of the bibliographic records in the shelf lists over the next five to ten years and consider ways to add records for other material not represented in the shelf lists. Total conversion would be beneficial for two reasons. First, it would enhance both the useability and the value of the online catalog and circulation systems. Users would have to check in only one file to determine if an item is in the Libraries' collections and its circulation status. Totally converting all of Cornell's records so that they are available in the online catalog would make "one-stop" bibliographic checking a reality. This would prevent library users who check only the online catalog from missing material available in the collections. Without total conversion, when users access the online catalog from remote locations where the card catalogs are not within reach, this failure to locate available material will become more common. Second, implementation of a local integrated library system will provide data for analyzing collections and patterns of use as well as for a wide range of management reports, but only for those collections that are fully represented in machine-readable form.

PLANNING CONSTRAINTS AND CONSIDERATIONS

Any plan for total conversion must accommodate competing, interrelated, and sometimes contradictory factors. Chief among them are cost, organization and use of the Libraries' collections, and the scope of the bibliographic data in machine-readable form.

Cost

Total conversion will be expensive; estimates range from two to four dollars per record. Funding must come from outside agencies as well as from Cornell. External sources are likely to provide funds for special projects which enhance the national database, but Cornell must provide an assured annual level of funding to convert items of local importance, for example the Undergraduate collection.

Organization and use of the Libraries' collections

The Libraries' organization, which reflects the University's administrative structure, affects users' access to subject collections. For material such as scores and sound recordings, it is easy to predict a location. Similarly, material in the humanities, except for fine arts and music, is concentrated either in Olin or Uris Libraries. However, material in the social sciences and sciences is collected in many units. This dispersion of certain subject collections makes it difficult for patrons to predict where an item is located. Therefore, in order to aid patrons in the effective use of the collections, records for items in subject areas or formats that are dispersed over many units should be converted before records for items that are concentrated in one or two collections.

Patterns of use vary markedly from one unit to another. A few libraries, notably Uris and Mann, are used intensively on site and also record consistently high circulation rates. In the science libraries, serials tend to be used appreciably more often than items in other formats. In addition, most of the use is concentrated on more recent publications. At Olin Library however, in-house use exceeds recorded circulation and pre-1970 items are used as frequently as more recent titles. Finally, as noted above, the low "predictability" factor for some disciplines means that users of certain subject collections, such as statistics, planning and energy, must regularly visit several libraries.

Olin Library's collections are exceptional in size, scope and complexity. Converting records for materials in special collections, foreign languages and non-roman scripts will require more time and attention than converting records for most other materials.

Scope of converted bibliographic data

By 1987, several libraries will have all or nearly all holdings available in machine-readable form:

Hotel Library -- complete
Industrial and Labor Relations Library -- complete
Mathematics Library -- all except non-current serials
Physical Sciences Library -- all except non-current serials

By 1987, over 80% of the library systems serial records will be in machine-readable form.

STRATEGY FOR SETTING PRIORITIES

After considering these factors, we recommend the following strategy for setting an agenda of conversion priorities. First, the Olin collections should be considered separately. Second, all proposals for conversion be evaluated according to use and predictability factors discussed above.

Olin collections

Recognizing that the availability of external funding will affect any plan, the first step is to consider the special nature of the Olin collections. Many of Olin's research resources rate high on the subject predictability scale because only Olin collects them, and equally high as problems because of the time needed to convert foreign languages, non-roman scripts and special collections. Olin's size prevents it from competing for a place among collections that could be completely converted easily. Much of the material in Olin is not heavily used and nearly all the humanities material and most of the historical social sciences material are not collected elsewhere. Because of this, Olin should not be considered for early conversion as a whole. However, for those subject areas collected at Olin which are also found in other libraries, Olin conversion should be done concurrently with conversion at the other sites, thereby increasing predictability.

Criteria for evaluating proposals

1. Convert records for serials before those for other types of materials.

   Thanks to the CONSER Project and the ongoing Humanities Conversion Project, over 80% of our serial records will be in machine-readable form by 1987. Because of the high level of serials use, the conversion of the remaining serials titles will aid in the acceptance and use of the online catalog.

2. Convert all records in library units reporting high circulation relative to total collection size.

   This will serve to make access more convenient and service more efficient. Total conversion in these library units has several advantages:

   a. It increases predictability concerning the collections. There is no need to check a card file if the entire collection is represented in the online catalog.
   b. The automated circulation process is supported in the library converted.
   c. Conversion is easier; an entire shelf list is processed at one time rather than in parts.

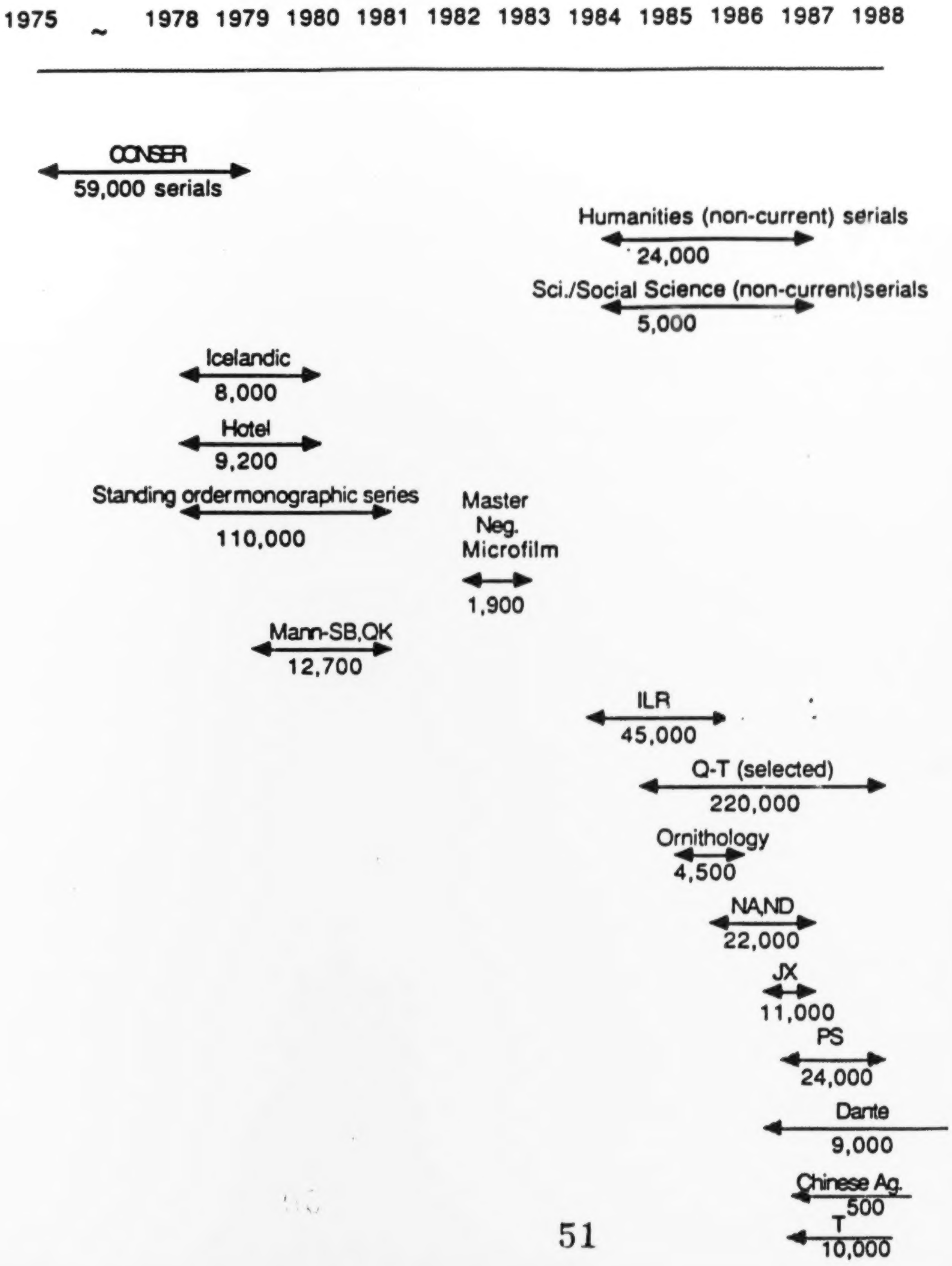
3. Convert records for items in subject areas collected in several libraries.

   Most of these areas are in the social sciences. Their conversion would appreciably improve the ability of many social scientists to predict the location of needed material.

CONCLUSION

In order that a system-wide record conversion plan be developed, the need for conversion and the priorities to be followed must be clearly understood. A better understanding of how our collections are used and of conversion methods and costs is also necessary. Finally, it is important to keep track of on-going projects and proposals. We recommend that a group be appointed and charged with the task of developing a specific system-wide conversion plan and recommending a method for oversight and coordination. Input is needed from public services and collection development staff on conversion priorities and from technical services staff on the relative costs and benefits of methods for getting the job done. This document and the Report of the Record Conversion Task Force (May 23, 1984) could provide the background necessary for the group to begin their work. A set of recommendations should be issued by the group and acted on before further conversion commitments are made to RLG next May, and new grant proposals for conversion submitted to funding agencies.

Record Conversion Projects



The University of Iowa 12/3/83
Retrospective Conversion Subcommittee
of the
Committee on Library Automation

FINAL REPORT

The Retrospective Conversion Subcommittee (RCS) has prepared the attached three documents and this narrative to fulfill its charge by the Committee on Library Automation (COLA). The RCS was to define the number of records to be converted, the timetable for conversion, the method of conversion, and the staffing and equipment needs for conversion. Additionally, RCS has presented 1983 costs for the project. RCS has dealt only with the University Libraries in this report. The Law Library staff has prepared a separate document for its conversion project.

COLA, in its report An Integrated Library System for The University of Iowa, defined specifications for a completely integrated automation system for the libraries at Iowa. Essential to any automation is the program for the conversion of print records, generally now in the standard 3 x 5 inch card form, to a machine readable form. While the development of the automation system and the conversion of print records can proceed in tandem, prior to placing the online catalog in the hands of library users, a substantial number of the print records must be in machine readable form.

Appendix 1, "Attribute Sampling, L.C. Shelf List," delineates the method used by RCS in determining the number of records representing books (with Library of Congress call numbers) in the University Libraries which need conversion work, and the results of this determination. The RLIN category represents those records in the Research Libraries Information Network (RLIN) which have been contributed by Iowa, other RLG members, and by the Library of Congress and already adopted by Iowa to represent its titles. Almost 22% of our book records fall into the RLIN category; none of these records needs conversion work.

The MARC category represents those records in the RLIN data base contributed by the Library of Congress (from its MAchine Readable Cataloging program) which will match our holdings, but which Iowa has not yet specifically identified and adopted. This category accounts for 23% of our book records.

The two categories of Other Member/Owner and Other represent those records in the RLIN data base contributed by other member/owners besides Iowa and, in the latter case, records contributed by users of the data base who are not member/owners of RLG. Records in both cases will match to some degree those of Iowa, but these records have not yet been specifically identified and modified for adoption as our records. These two categories account for 26% of our book records.

The fifth category, No Copy, represents the number of our book records for which no data is available in RLIN. That is, records for 29.1% of our book collection do not exist in RLIN in any form.

Almost 48% of our classified book collection was published since 1968, that being the year when the Library of Congress began its MARC program, and Appendix 1 indicates that for conversion of book records for our post 1967 collection, only 2.4% of our book titles are not represented in RLIN.

Appendix 2, "Retrospective Conversion, L.C. Shelf List," details the method and cost of record conversion over a five year period for Iowa's book titles, for both the full collection and for records representing post 1967 publications, using the RLG/RLIN data base.

Appendix 3, "Retrospective Conversion, Serials," details the method and costs for conversion of all serial titles, again using the RLG/RLIN data base.

The RCS recommends to COLA the following:

1. That, beginning 1 July 1984, the University Libraries undertake a five year program to convert print records for books and serials to machine readable form so that at the end of the

project, well over one-half of Iowa's titles will be in machine readable form.

2. That for books, only records for those published since 1968 be included in this project, as explained in Appendix 2, and that once this initial conversion is completed, plans then be formulated to convert the remaining titles as time and finances allow.
3. That for serial titles, all records be converted and that for those records now in RLIN in successive title cataloging form and for which Iowa has done latest title cataloging, Iowa enter into RLIN its existing latest title cataloging, all as detailed in Appendix 3.
4. That, except for start up costs added to the first year, funding be equal for each of the five years of the project.

Staffing and RLIN costs for both book and serial record conversion would be as follows (see specific details in Appendixes 2 and 3; all costs are in 1983 dollars):

Personnel	$638,290
Start Up	12,854
RLIN	222,152
TOTAL	$873,296

RLIN charges are based upon Iowa receiving RLG's retrospective cataloging rate; should we not be successful in our application for that rate, RLIN charges should be increased by $473,177 for a total project cost of $1,346,473. We fully expect that Iowa will be eligible for the lower rate.

Based on these 1983 costs and the recommendations, the University Libraries System needs $184,942 (which includes start up charges) as of 1 July 1984 for the first year of the project.

ATTRIBUTE SAMPLING

L.C. SHELF LIST

Attribute sampling as described by Dougherty, Richard M. and Heinritz, Fred J. in Scientific Management of Library Operations, Scarecrow, 1982 (pp. 215-218) is the basis for the sample size, and by extension, the percentage that each category is represented in the collection. It was determined, after consultation with the University's Statistical Consulting Service, that a sampling size of 350 was valid for a confidence level of 95% with a tolerance of ±5%. In fact, the sample consisted of 361 examples, thus improving the confidence level for each category. The sampling distribution, and the percentage of the total are as follows:

TOTAL: 361

	Count	% of Total
RLIN	79	(21.9)
MARC	83	(23.0)
OTHER MEMBER/ OWNER	21	(5.8)
OTHER	73	(20.2)
NO COPY	105	(29.1)
	361	100%

Using an additional 579 samples, we were able to determine that 47.9% of the collection was published since 1968. Because this sample was larger (953 examples) the tolerance level calculated to ±3.2% with the confidence level remaining 95% (Pre 1968 - 487 or 52.1%; post 1968 - 448 or 47.9%).

The percentage distribution was extended for the various processing categories for 1,034,000 titles in the total collection with the following results:

RLIN	21.9%	226,400 titles

MARC	23 %	237,800
OTHER MEMBER/ OWNER	5.8%	60,000
OTHER	20.2%	208,900
NO COPY	29.1%	300,900

If the Post-1967 imprints were isolated, the following distribution percentages would result for 495,300 titles.

RLIN	45 %	222,900
MARC	41.4%	205,000
OTHER MEMBER/ OWNER	3 %	14,900
OTHER	8.2%	40,600
NO COPY	2.4%	11,900

RETROSPECTIVE CONVERSION
L.C. SHELF LIST

The L.C. shelf list can easily be divided into five processing categories, requiring various levels of personnel involvement in each. For the sake of this discussion and for comparison purposes, the costs of retrospective conversion for four of the five, both for the entire collection and for only post-1968 imprints, have been enumerated below, assuming that both these projects would qualify for RLG's "retro" rate and assuming a 5 year completion date:

Categories and Number of Records

		Total Collection	Post-1967 Imprints
A.	RLIN COPY	226,400	222,900
B.	MARC	237,800	205,000
C.	MEMBER/OWNER COPY	60,000	14,900
D.	OWNER COPY	208,900	40,600
E.	NO COPY	300,900	11,900

Approximately 75% of categories D and E could be processed (tagged) by LA III's; the remaining 25% would probably need the attention of a librarian. Category C would be processed by LA III's, with a librarian available for consultation or problems. All but about 11% of category B would be processed by students. It is estimated that a librarian could process 4,000 titles per year; LA III's, 10,000 t/yr (online), 20,000 t/yr (worksheets); and students, 25 t/hour (500 per 20 hour week, 25,000 per 50 week year).

For the actual processing the following additional personnel would be needed:

Conversion

	Total Collection	Post 1967
Category D/E	3.8 LA III (using worksheets)	.5 LA III

	6.4 Librarians	1 Librarian
Category C	1.2 LA III (online)	.5 LA III
Category B	1.7 student employees	1.5 student employees
	.2 Librarian	.2 Librarian

Searching/Inputting

3.5 LA III	.8 LA III
6 Clerk-Typist II	2 Clerk-Typist II

Total personnel needs would include one full-time project director (Librarian II) in addition to those enumerated above:

	Total Collection	Post 1967
Librarian II	1	1
Librarian I	6.4	1
LA III	8.5	1.8
Clerk-Typist II	6	2
Student Employees	1.7	1.5

Total yearly personnel costs based on 1982/83 salary budgets would be:

	Total Collection	Post 1967
Librarian II	1 x $19,000 = $ 19,000	1 x $19,000 = $19,000
Librarian I	6.4 x $16,000 = $102,400	1 x $16,000 = $16,000
LA III	8.5 x $14,147 = $120,300	1.8 x $14,157 = $25,500
Clerk-Typist II	6 x $10,424 = $ 62,600	2 x $10,424 = $20,900
Student Employees	1.7 (20 hrs/wk)	
	50 wk/yr = $ 6,200	1.5 = $ 5,400
	TOTAL = $310,500	= $86,800

Extended for the five year project, the costs for personnel would be $1,552,900 and $434,000 respectively.

The following charges from RLG (based on 1983/84 figures) would also be realized for the five years.

Initial Start Up Costs

	Total Collection	Post 1967
Hardware	7 RLG 84 terminals x $1,598 = $11,186	2 x $1,598 = $3,196
	2 TI 800 printers x $2,019 = $ 4,038	1 x $2,019 = $2,019
Installation		
a) Terminals		
	1 x $120.00 = $120.00	1 x $120.00 = $120.00
	6 x $ 66.00 = $396.00	1 x $ 66.00 = $ 66.00
b) Leased Lines		
	2 x $333.00 = $666.00	1 x $333.00 = $333.00
c) Local wiring		
	= $3,000.00	= $1,000.00
Workstations		
	7 x $350.00 = $2,450.00	2 x $350.00 = $700.00
TOTAL	= $21,856.00	= $7,434.00

RLIN CHARGES

Cataloging	Total Collection	Post 1967
No Copy	300,900 x $ 0 = 0	11,900 x $ 0 = 0
Upgrade	52,225 x .13 = $ 6,789	10,150 x .13 = $ 1,320
Not Upgrade	156,675 x .48 = $ 75,204	30,450 x .48 = $ 14,616
Member/Owner Copy	60,000 x .48 = $ 28,800	14,900 x .48 = $ 7,152
MARC	237,800 x .48 = $114,144	205,000 x .48 = $ 98,400
TOTAL	$224,937	$121,488

CPU Usage

Searching	123,879 sec. x $.13 = $16,104	28,131 sec. x $.13 = $ 3,657
Inputting	348,883 sec. x .13 = $45,355	117,677 sec. x .13 = $15,298
TOTAL	$61,459	$18,955

Tapes

Catalog Records on tape	807,600 x .074 = $59,760	272,400 x $.074 = $20,160

Communications, Maintenance

Full face mode service	7 x $265/m = $ 22,260/yr x 5 yrs = $111,300	2 x $265/m = $ 6,360/yr. x 5 yrs = $31,800

Total costs for 5 year project:

	Total Conversion	Post 1967
Personnel	$1,552,900	$434,000
Start Up	21,856	7,434
RLIN	457,456	192,403
TOTAL	$2,032,212	$633,837

If we are unable to secure the retro rate from RLG, the charges for two cataloging categories, "derivative upgrade" and "derivative not upgrade," would be substantially higher. Rather than paying RLIN $.13 and $.48 respectively the charges would be $1.98 for the former and $2.20 for the latter. An additional charge of $877,313 would have to be added to the total conversion cost, and $442,779 to the post-1967 conversion cost.

Calculations for the following collections have not been determined (Dewey - 54,000 titles, Microforms - 31,000 titles and records - 12,000 titles).

RETROSPECTIVE CONVERSION
SERIALS

The Minnesota Union List of Serials (MULS), current as of December, 1980, contains just over 28,000 Iowa serials that have not been cataloged as separates, i.e. as classified books. This figure represents a quite accurate count of the serial titles in need of conversion because a large majority of post 1980 new titles were cataloged using RLIN and are in a full MARC format. In addition, recataloged older titles are input on RLIN in a full MARC format whenever possible.

A sampling of the Iowa MULS records to determine their attributes resulted in the following:

TOTAL TITLES 28,000

Attribute	Number of Titles	Percent of Total
Already on RLIN	560	2
MARC copy; no changes; easy holdings	840	3
MARC/member copy; minor changes; easy holdings	8,120	29
MARC/member copy; bibliographic or holdings problems	11,200	40
MARC/member copy for successive title (we have latest title)	7,280	26

The titles with MARC or member copy, with minor or no changes, and without holdings problems could be processed by an LA III either directly online or using tagging worksheets off line. The titles with MARC or member copy that have bibliographic or holdings problems would need to be processed by a librarian. The processing of the remaining titles - those with MARC/ member successive title cataloging for which we have done latest title cataloging - can be approached in a number of ways.

I. Recatalog to successive title entries.
   This approach would be very expensive not only for the recataloging

effort but also for remarking the volumes, shifting in the stacks, and in some cases the disbinding of volumes.

II. Bypass RLIN and put these titles in a local public online catalog. This would not be practical because if the local online catalog is based on RLIN, the locally created serials tape would have to be compatible and a program would have to be written to make it so. Until the public online catalog is developed, standards for compatibility will not be known.

III. Enter in RLIN existing cataloging.
This is the simplest approach because the manual cataloging as it now exists is of the highest quality and in most instances complete; and an LA III could tag it for inputting. It is possible that RLIN would allow these to be entered as standard under a retro umbrella.

It is estimated that, with serials, a librarian can process 2,500 titles per year and an LA III can process (online) 15,000 titles per year or tag (offline) 7,500 titles per year. Assuming a five year project and assuming that we tagged the latest title entry for inputting the following additional personnel would be needed:

1.5	Librarian I	- To process MARC/member problems and to supervise work of others
1	LA III	- To process MARC/member copy online to tag latest title entries on worksheets and to search data base.
	Student employees	- 15 hours/wk for inputting.

At 1983/84 rates the annual personnel salary would be:

Librarians	$24,000
LA III	14,157
Students	2,700
TOTAL	$40,858

RLIN charges for the entire project (based on 1983/84 rates) would be $9,642 for cataloging, $2,031 for tapes and $2,176 for searching and inputting. Because one additional terminal and printer would be needed, the start up charges would be $5,420. Communications charges for the five year period would be $15,900.

Assuming that we would be granted the retro rate from RLG the costs for the entire project would be:

Personnel	$204,290.00
Start up	5,420.00
RLIN	29,749.00
TOTAL	$239,459.00

Assuming that the retro rate from RLG would not be granted, the costs would increase by $30,398.

RUTGERS UNIVERSITY 6/4/86

Proposed Guidelines for a Long-term Coordinated Retrospective Conversion Program at Rutgers

I. Statement of purpose:

These guidelines are developed in order to establish a coordinated program for retrospective conversion of bibliographic records to improve access to scholarly resources at Rutgers, to support our future on-line catalog and our collection management activities.

In order to meet our primary goal, that is, to quickly and efficiently build an on-line bibliographic file in a coordinated manner, a general procedure is to be followed for making decision on RECON projects.

II. Scope of these guidelines:

A retrospective conversion program to achieve an extensive bibliographic data base is conceived as a multi-year effort. The creation of MARC request records on Geac which lays a foundation for RECON Projects in the future is considered as an initial step of our RECON effort and is therefore covered by these guidelines.

III. Approval of RECON projects:

The initiating individual/group should submit a written proposal to a designated Committee for review. This designated Committee, which evaluates the proposal on the basis of the criteria/priorities described in Section IV, makes a recommendation to the University Librarian. The University Librarian will make a final decision.

IV. RECON priorities/criteria:

Any RECON project should benefit the entire Rutgers community as we share a common database. The value of individual RECON project must not be considered as having limited benefit to one individual library or unit.

a. Current Materials consideration:

The effect of any RECON project on technical processing of current library materials must be considered.

b. Financial consideration:

RECON projects are heavily consumptive of staff and computer resources and always have financial implications. The availability of necessary funding, either internal or external, must be considered. High priority will be given to projects for which external funding may be available.

c. Current-needs consideration:

Since the value of any RECON project is to be looked at to Rutgers libraries as a whole, in other words, everything being equal, our primary concern has to be current compelling needs, i.e. conversion of circulating materials.

d. Other than circulating materials, priority is to be given to serials titles, including documents serials and to reference materials, as suggested by the Futures Committee.

e. Our library users and staff are best served if collections at a library are fully converted and all are represented in our on-line bibliographic file. High priority is thus to give to this library location consideration.

V. RECON Methodology:

We intend to achieve a high level of record usefulness but, at the same time, at lowest practical conversion cost.

a. We generally do not recatalog items as part of the RECON efforts.

b. Since no one single RECON method is ideal or suitable for all situations, we will use different RECON methods to achieve our goal. They now include:

i) Batch conversion using our MARC request records/search keys which involves a commercial vendor.

ii) online conversion using RLIN.

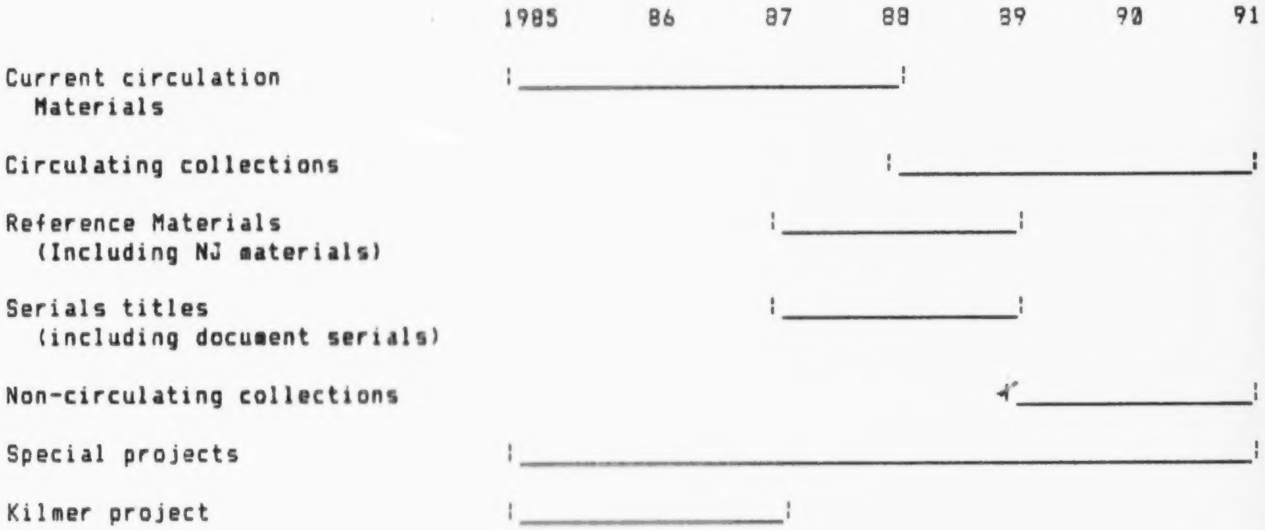
c. Thru our RECON efforts, we will enrich our local on-line bibliographic file and we must also have these converted records reflected in RLIN sooner or later regardless the RECON method used.

VI. RECON timetables:

It is proposed that our retrospective conversion of bibliographic records be completed in two 3-year phases. The total Rutgers shelf-list count is approximately 1.6 million. Figuring that approximately one fourth of this count is comprised of 2nd, 3rd ... cards, that translates to roughly 1.2 million titles (not unique titles). Approximately 580,000 of these are currently represented in our machine-readable database. Roughly 350,000-400,000 titles remain to be converted.

a. First three-year phase, FY1985-88
Current circulating materials (FY1985-88)
Reference materials, including NJ materials (FY1987-88)
Serials records, including document serials (FY1987-88)
Supplemented by approved Special projects (e.g. Kilmer Library Project)

b. Second three-year phase, FY1988-91
Circulating collections (FY1988-91)
Reference materials, including NJ materials (FY1988-89)
Serials records, including document serials (FY1988-89)
Non-circulating collections (FY1989-91)
Supplementd by approved special projects


1985
86
87
88
89
90
91
Current circulation Materials
Circulating collections
Reference Materials (Including NJ materials)
Serials titles (including document serials)
Non-circulating collections
Special projects
Kilmer project

SS/rao/5/2/86

RECON PROPOSAL FOR INTERNAL FUNDING

A Three-Year Retrospective Conversion Plan at Rutgers

Basis of the Plan

1. RUL is committed to systematic retrospective conversion to support its automated programs that involve bibliographic records.
2. Retrospective conversion under this plan will be done through RLIN.
3. The Future Committee's recommendations on retrospective conversion will form the basis in setting priorities for the retrospective conversion work. (see attached).

Goal

Over a three-year period, beginning July 1985, to convert 150,000 titles held at Rutgers libraries.

Size of the Machine-Readable Bibliographic File Before and After the Plan

The total Rutgers shelflists count is approximately 1.6 million. Figuring that approximately one fourth of this count is comprised of 2nd, 3rd...cards, that translates to roughly 1.2 million titles (not unique titles). Approximately 400,000 of these are currently represented in our machine-readable bibliographic database. Conversion of 150,000 titles under this plan and another 100,000 to be added prospectively through regular cataloging process in this three-year period would bring the total to 650,000. This would mean that about half of the cataloged collections at Rutgers would be represented in our machine-readable database by mid-88. With a modest title overlap ratio, a total representation up to 75% of the unique bibliographic titles of these cataloged collections in this machine-readable database could be expected at the end of this three-year project.

Assumptions Used in Cost Estimates

1. Assume project activity is spread evenly across FY 1985-86, 1986-87, and FY 1987-88.
2. Assume current RLIN recon rates and current pay scales for the 1st year, inflated 5% for the 2nd year and an additional 5% for the 3rd year.

3. Assume an initial hit rate of 50% on RLIN for the 1st year, 55% for the 2nd year and 60% for the 3rd year.

4. Assume 50% of work done on-peak and 50% of work done off-peak. If these assumptions hold, the average cost of "creates" transaction will be approximately $0.11, and the average of a derived transaction will be $1.54 in the 1st year, $0.12 and $1.62 in the 2nd year and $0.13 and $1.70 in the 3rd year.

5. RLIN communications and charges for tape products will not be considered under this budget request.

Cost Estimates (3 years)

1. Staff
   - a. searching, tagging and entry into RLIN
     50,000 titles @ 6/hr = 8,333 hrs. @ $5.00/hr=$41,666.00
   - b. Revising, problem solving, and training
     1 FTE Library Associate III @ $14,380/yr = 14,380.00
     TOTAL $56,046.00
   - c. 1st year $ 56,046.00
     2nd year 58,848.00
     3rd year 61,790.00
     TOTAL $176,684.00 (excluding fringe benefits)

2. RLIN transaction charges
   - a. 1st year
     creates (50%) 25,000 x $ .11 = $ 2,750.00
     derives (50%) 25,000 x $1.54 = 38,500.00
     $41,250.00
   - b. 2nd year
     creates (45%) 22,500 x $0.12 =$ 2,700.00
     derives (55%) 27,500 x $1.62 = 44,550.00
     $47,250.00
   - c. 3rd year
     creates (40%) 20,000 x $0.13 =$ 2,600.00
     derives (60%) 30,000 x $1.70 = 51,000.00
     $53,600.00
   - d. Total transaction charges
     $ 41,250.00
     47,250.00
     +53,600.00
     $142,100.00

3. **RLIN Terminal needs**

It is estimated that each dedicated terminal will yield 2,500 usable hours a year. It is also estimated that every ten titles to be converted will require one-hour terminal time. One printer will be needed.

50,000 titles ÷ 10/hr = 5,000 terminal hours

5,000 hours ÷ 2,500 hrs/terminal = 2 terminals

4. Space requirements

Personnel:	Project manager	1 FTE
	Students	4 FTE
Equipment:	2 RLIN terminals	
	1 printer	

Space requirements:

project manager 1x100 = 100
students (2 shifts) = 200
2 terminal stations = 50
350 sq.ft.

Budget Brief (3 years)

1. Staff and RLIN costs:
   $318,784.00
2. Terminal/printer needs:
   2 dedicated RLIN terminals
   1 printer
3. Space requirements: 350 sq.ft.

SS/lmh/1/15/85

The committee spent considerable time on the possible development of an interim microfiche catalog. (The specifications document is included as Appendix C) In the end it was decided to recommend against this project because:

1) the savings from closing the card catalog would be substantially reduced by development and equipment costs.
2) the incremental costs of producing the fiche catalog are quite high.
3) time spent developing the interim format could better be spent in on-line catalog planning.
4) the availability of the Marc Record Management System (MRMS) in Geac moved our capability for implementation of a public access on-line catalog much closer than ever before.
5) the demands of Geac circulation implementation preclude our spending the time to develop a microfiche product which would meet our requirements.

We will eventually have a fiche format catalog but this will be a by-product of and back-up for our on-line catalog.

It is the recommendation of the committee that we begin the implementation of the Geac on-line catalog from our MRMS data base as soon as the circulation system is up and running successfully. Recognizing that any time table for the implementation of such a project is dependent on the availability of substantial sums of money for equipment, we are nevertheless convinced that the on-line catalog is within our grasp. (Appendix D of the User Study Subcommittee reports on public access on line catalogs) A new committee needs to be formed to work on the specific details of our on-line catalog and more broadly on our machine readable data bases. While there should be representation from the public service sector and the Futures Committee, this new committee should be made up of people with the technical expertise to handle the detailed planning, testing and implementation of the project.

IV. Retrospective Conversion

The other major challenge which faces us in the successful move to an on-line environment for our bibliographic record is that of converting our non-machine readable records to a format that will allow for their inclusion in the data base. The committee's recommendations include a clear statement of priorities:

First priority is for the conversion of serial records.

Second priority should be given to records for titles that are currently circulating.

Third priority (or included with number two) should be records for reference materials.

Retrospective conversion should be done through RLIN, but should be done in such a way that the process does not interfere with our current cataloging through-put. Hopefully RLIN will develop a low cost, off-line system for retrospective conversion.

The remainder of the collections should be converted on a library location basis giving first preference to the complete conversion of libraries where a majority of the records are already reading in machine readable format. The shelf lists for all libraries should be maintained in the present card format until at least 90% of the records for that unit are converted.

Non-roman alphabet catalog records will also continue to be maintained in card format for the forseeable future.

SWB:drw

RUTGERS UNIVERSITY 9/13/85

An RLIN Retrospective Conversion Project at Rutgers University Libraries: An Overview of Working Assumptions

I. Standards and Guidelines.

1. The current Research Libraries Group(RLG)Bibliographic Standards (Document Code: 81-56, December 18, 1981) will be used as the standards for record input.

Some of the pertinent sections of this document are:

Section 1.5.1 (p. 6)

> Catalog records input according to separately developed standards for retrospective conversion will not necessarily correspond to the same practices as those records that represent new cataloging. Variations permitted for approved retrospective conversion projects will be contained in a separate document.

Use of existing copy is clearly spelled out:

> 2.2 AVAILABLE CATALOGING COPY
>
> The descriptive cataloging available on LC copy is used, whether the copy has been prepared by LC or as a part of the Title II program, or whether it is according to ALA or AACR rules.
>
> Descriptive cataloging copy prepared prior to the adoption of AACR2 may be modernized for input into the data base. However, in most instances, copy resulting from such modernization should be treated as original cataloging. Original cataloging records modernized from LC copy in this way may include the LC card number and LC call number if included in the LC manual record.
>
> Modernization of NUC-LC copy input as original may range from changes for ISBD punctuation to changes in choice and form of access points for conformity with AACR2.
>
> Copy already existing in the data base may be modernized in the same way as NUC-LC copy being input as original. However, users should still derive from existing copy in preference to keying in new records. Existing on-line copy identified in the Cataloging Category (CC) as meeting the full level at the time of input cannot have its CC value raised to a higher level, nor will the user receive a rebate for upgrading such a record. (See section 1.3)
>
> An exception to the policy of use of existing LC copy will be made in the case of serials. For serials that began publication after 1967 or that changed titles after 1967, newly input full-level records must follow the rules for successive title cataloging, for titles that began publication or that changed title prior to 1967, the input of successive title cataloging records is strongly encouraged, although latest title cataloging is permitted.

6.1 USE OF EXISTING RECORDS

A thorough search of the RLIN data base is required before a new record is input. An existing record for the same bibliographic entity (see section 1.4.5) should be used, with upgrading or modification if necessary, in preference to the creation of a new bibliographic record.

The policy on using existing subject headings and adding local headings is described:

4.3 TRANSCRIBED LC COPY

LC subject headings when available on LC resource copy (i.e., non-MARC LC copy from NUC or from catalog cards) are input to the RLIN system.

4.4 UPGRADING HEADINGS ON NON-MARC LC COPY

LC subject headings on LC resource records that reflect superseded practice need not be updated to reflect current LC form and practice.

4.5 NON-STANDARD SUBJECT HEADINGS AND LOCAL SUBJECT HEADINGS

Headings in conflict with the RLG standard may be input to the system, provided they are identified as such, and stored as part of the bibliographic record, but are not under RLG authority control. This includes records that contain only subject headings from systems other than LC or NLM, as well as records that contain local subject headings in addition to standard subject headings.

In regard to Content Designation Standard:

6.3.2 Full Level, Item Not in Hand

Includes the same provisions as the full level, item in hand, except those fields and/or subfields that cannot customarily be supplied from catalog copy only. Generally reserved for retrospective conversion of full catalog records being input by approved retrospective conversion projects.

2. The RLG/RLIN document dealing specifically with RECON is Approved Retrospective Conversion Projects: Procedural Guidelines for Cataloging (Document Code: 82-112, September, 1982).

Some of the pertinent sections of this document are the following:

I. Standards

a) New Cataloging

As part of an approved retrospective conversion project, users may occasionally perform a certain amount of new cataloging. This may occur when an approved retrospective conversion project covers a collection containing some items that have never been cataloged at all. This also occurs when the existing catalog records being used for conversion do not meet users' current needs. For example, an institution may have records that treat microform editions as added copies of original hard-copy items, but it may now wish to convert to separate on-line records for the hard-copy and microform editions. Also, users should create one or more successive-title catalog records for post-1967 serials if they were cataloged locally using latest-title cataloging.

Newly created catalog records that are part of these projects should be created following the December 18, 1981 paper titled "RLG Bibliographic Standards" (Document Code 81-56), or its successor when approved and issued. Those standards describe full cataloging and content designation levels for bibliographic records.

1. Content Designation

i) Variable-length fields: All variable fields included in a record are to be properly and fully content-designated (tags, indicators, and subfields). Records for microforms should include appropriate general material designation in field 245 subfield h.

ii) Fixed-length fields: All fixed fields on the input screen should contain valid values (i.e., no question mark fill characters should remain in these records). This does not, however, require exhaustive searches for substantive data if not readily available, especially for retrospective records input without item in hand. Most fixed fields have valid values representing "unknown", "not applicable", or "unspecified." Fields for which such values are not defined and for which appropriate values may not be discernible from the catalog record itself are discussed in the field guides for the individual formats, which give guidance as to values to use in case of doubt. (For Books these are: BIO, CPI, FIC, FSI, and II.) Records for microform master negatives must contain the value "a" or "b" in GEN, however, in order to be included in the RLG union list.

2. Cataloging

Cataloging copy newly created for approved retrospective conversion projects should follow the RLG Bibliographic Standards, preferably at the full level.

b) Retrospective Conversion

1. Content Designation

i) Variable-length fields: All variable fields included in a record are to be properly and fully content-designated (tags, indicators, and subfields). Records for microforms should include appropriate general material designation in field 245 subfield h.

ii) Fixed-length fields: All fixed fields on the input screen should contain valid values (i.e., no question mark fill characters should remain in these records). This does not, however, require exhaustive searches for substantive data if not readily available, especially for retrospective records input without item in hand. Most fixed fields have valid values representing "unknown", "not applicable", or "unspecified." Fields for which such values are not defined and for which appropriate values may not be discernible from the catalog record itself are discussed in the field guides for the individual formats, which give guidance as to values to use in case of doubt. (For Books these are: BIO, CPI, FIC, FSI, and II.) Records for microform master negatives must contain the value "a" or "b" in GEN, however, in order to be included in the RLG union list.

2. Cataloging

Cataloging copy used for approved retrospective conversion projects may be used in the form in which it exists at the time of conversion. It is not necessary to upgrade or modernize any pre-existing cataloging. However, incomplete catalog records should not be labeled as full level. (See "Cataloging Category" below).

III. RLIN II Cataloging Functions

All cataloging done as part of approved retrospective conversion projects must be done in the RETrospective function regardless of whether it is new cataloging or retrospective conversion. This will allow appropriate counts to be made of cataloging being performed under the auspices of such approved projects. This will not affect the records, CC coding, or output resulting from such projects. Records entered in any other functions will be subject to the regular system charges for entering records in those functions.

All commands, record displays, input screens, and system edits in the RET function are identical to those in the CATalog function. Although records are to be input using the RET function, any maintenance done on them, either on the same day or at any subsequent time, must be done in the CATalog MAIntenance function.* This includes changing the status of a record from "saved" to "production."

*On 1 September 1985 RETrospective conversion MAIntenance rates go into effect. RET MAI is for maintenance to records entered into RLIN under approved retrospective conversion projects.

The full documents should be inspected for more detail. The foregoing excerpts relate more to policy than to details of record entry.

II. Priorities of Record Entry in RECON

1. Of the two basic strategies of RECON now under consideration, i.e. tape matching and/or online transaction, it would be well to keep in mind some of the pros and cons of tape matching: tape matching is faster and much more economical. On the other hand, it is less certain in terms of quality control. From a businecss point of view, there is still no vendor known to us whose product will be acceptable both to Rutgers and RLIN.

2. The classes of records candidate for entry are the following:

   A. All MARC Request records now residing in MRMS.
   B. On-going MARC Request records.
   C. Actively circulating records not in MARC Request data base (some Plan A, Plan B).
   D. Reference material (including the Sinclair Collections).
   E. Serials.
   F. Others.

3. Of these potential entry candidates, priorities should be arranged thusly for the in-house RLIN project. This should be done in advance of selecting an appropriate vendor for tape matching.

   Option 1 ABCDEF (Do A above first, then B, then C...)
   Option 2 BACDEF (Do B above first, then A, then C...)
   Option 3 DBACEF (Do D above first, then B, then A...)
   :
   etc.

III. Multiple Locations/Copies in RECON

1. RLIN has costly restraints on the successive entries to a record converted in the RET function.

   The way our files are set up (shelflist and IRIS input files) all Locs are not known at time of initial entry. Of course the Union card catalog can be consulted first which is not very practical.

2. An added difficulty is the presence of multiple or different catalog records prepared for different libraries over th years, yet the on-line data base should contain but one version.

3. In addition, units now involved with Plan C conversion are systematically discarding any add 966 records. Even 966 records were kept, they would only give a partial picture.

4. Fairly recent copy entry policy in IRIS bypasses RLIN.

IV. The Principle of More is Better

Option A: apply this principle

This principle, if applied, would result in retaining the full record as encountered in RLIN (e.g. No subjects additional to those on our shelflists would be removed.) and conversely, adding elements from our shelflists to the online record (e.g. a local Contents note).

The RLG/RLIN standards allows this concept: "An existing record for the same bibliographic entity should be used, with upgrading and modification if necessary." (6.1, p. 13)

This could result in the mixing of bibliographic elements prepared under different cataloging codes.

Option B: do not apply this principle

This would result in deletions of headings and other elements from the online record as well as suppression headings and elements on the shelflist. This alternative is probably more time consuming.

V. The Principle of Latest is Better

Option A: apply this principle

This principle, if applied, may result in using an online AACR2 record in place of a pre-AACR2 shelflist record. All records to be converted in this project will be pre-AACR2 formats. This approach will probably be less time consuming than Option B below, but significant differences between online record and the shelflist record, including form of series, will occur.

Option B: do not apply this principle

This approach would result in many changes to the online record in order to make it agree with the shelflist records, and a generally regressive policy.

But it should be noted that in the Approved Retrospective Conversion Projects: procedural guidelines for Cataloging:

"Users are encouraged never to downgrade the full level of content designation (value "1" or "2") but are urged to upgrade less-than-full content designation and to change the value "9" to "1" if they have done so." Content designation refers to the coding of fields and subfields (fixed fields, indicators, delimiters, etc.) Downgrading bibliographic record will inevitably result in downgrading content designation.

SS/ED/rao/9/13/85

Studies

UNIVERSITY OF MICHIGAN

Systems Office

October 20, 1986

To: Barbara von Wahlde

From: Phyllis Valentine

Subject: Introduction for ReCon discussion document

*Introduction to document*** (should replace the original)

The University of Michigan Library has been interested in retrospective conversion of its older cataloging records for a considerable period of time. But budgetary constraints have consistently limited conversion efforts to grant-funded projects or isolated conversion required for the processing of current materials or problems. As the library planned for an integrated library system there was increasing concern about the lack of a broad program or plan to deal with conversion of the non-machine cataloging records. Although the grant efforts had converted a large number of records, the majority of the collection remained unconverted.

Efforts have been made to assess the extent of the problem: a detailed time and cost study of the grant supported conversion was undertaken in April 1985, results of the conversion efforts up to March 1985 were summarized, and the ratios of machine-readable records to non-machine records were determined by classification. Three staff members involved in these studies and evaluations, (Robert Houbeck, Jr., Lynn Marko, and Phyllis Valentine), met in late spring 1985 to discuss the results of this work and other reports. In addition, they considered overall assumptions for the library and options for the process itself. The result of the work was an internal discussion paper for the library administration which was intended to test ideas and assumptions and to focus attention on the issue.

What follows here is part of the first draft of that internal discussion document: the list of assumptions and the proposed retrospective conversion access record elements and sample records. The portions of the draft which have been omitted include the results of the three efforts mentioned above which are specific to the University of Michigan. This document underwent another draft in the late summer of 1985 and has been discussed at the administrative level. No decisions or long range plans have as yet been formally adopted.

UNIVERSITY OF MICHIGAN 7/12/85

RETROSPECTIVE CONVERSION DISCUSSION PAPER

The University of Michigan Library has been active in retrospective conversion of its collection for several years, but this activity has been more episodic than systematic. Conversion funding has been both internal, supporting the conversion of records needed for the processing of new materials, and external, with grants supporting the conversion of certain portions of our collection or certain types of records (e.g. serials). The retrospective conversion of the monographs in our collection has become an issue of increasing importance in the last few years because of the impending acquisition of an Integrated Library System and because of the number of records that still remain to be converted into machine readable form.

The purpose of this paper is to provide a framework for the discussion of retrospective conversion and to propose direction for more comprehensive retrospective conversion of monographs at the University of Michigan. It is hoped that this paper and discussion may be a catalyst for the timely development of a Michigan retrospective conversion policy and for implementation of a program which will have as its goal the efficient conversion into machine readable form of a large number of catalog records for the Integrated Library System. The paper is not intended to present results of tests or cost studies of conversion methods or records beyond the study recently done of our current process. It does however suggest several areas which need to be timed and costed. It also suggests specific steps which should be taken to support the direction outlined here. The paper proposes a combination of conversion methods and products.

The issue of retrospective conversion for the University of Michigan Library has three major components:

1. The large number of records to convert in a relatively short time

2. The need to find the most cost effective conversion method(s) as well as the funds to support them

3. The need to maintain access to a large and varied collection as we move from a traditional card catalog to an on-line catalog

These three areas combine to force a closer look at past procedures and methods of conversion and to consider changes.

Michigan has over 1.5 million records which are NOT in machine readable form covering the entire range of cataloging classifications. This number does not include Serials (which are converted), monograph analytics, documents, dissertations, or locally cataloged materials. Although we have had a number of grant-funded conversion projects, the number of records converted through grants represents a very small percentage of our collection. See **Appendix A** for a report of these conversion efforts through March 1985 and **Appendix B** for a report of the percentages of machine readable monograph records by classification. Appendix D also demonstrates the range and composition of conversion work left to do.

The conversion product and process developed at Michigan, which was designed to produce complete MARC records on RLIN, was timed and costed in April 1985. **Appendix C** is the report of that study. The average cost per record of $2.12 ($0.93 staff, $0.17 RLIN telecommunications and maintenance, $1.02 RLIN transactions and CPU) [Table 4 of **Appendix C**] may be low considering the steps that the product requires, but the cost of producing 1.5 million records in this way would be $3.2 million dollars (not counting inflation) and the time required would be 195,500 hours. It is optimistic to expect that we will receive adequate funding to convert all of our records in this same way or in as short a time frame as we would like.

The cost of retrospective conversion can be reduced in a number of ways. The **NUMBER** of records chosen for conversion can be reduced, but this is not an acceptable alternative. Research evidence indicates that the user community will not use the online catalog unless it contains what they want and that they will not search more than one source for materials [Using online catalogs: a nationwide survey, pp.174-175] Neither staff nor patrons will be able to rely on the online catalog entirely until all records in the card catalog are converted [Epstein: "Converting bibliographic records for automation: some options, p.474 LJ] It appears unlikely that we or our users would find acceptable an online catalog which contained only a small portion of our collection. However this is an issue to discuss because of the large committment of staff, money, and time required by any conversion effort.

Cost can also be reduced through the streamlining of the **PROCESS** to avoid duplication of effort or unnecessary steps. Technical Services has demonstrated with its current conversion efforts that an efficient process to fit the needs of the particular method can be seen as a given. Whatever the method, number, and type of record, an efficient process can be developed. But some methods may be inherently more efficient.

The **FIXED COSTS** (associated primarily with the **METHOD**, such as RLIN or vendor) can be reduced through choice, although these costs are linked also to preparation and editing costs. There are several alternative **METHODS** for conversion. RLIN, our current method, produces a complete MARC record for every item. Using RLIN, individual records are created one by one, a process which uses higher level staff for many steps including the online function because of the judgment involved in the process. Records being created may receive early attention that later proves to be unneeded. The machine costs, including telecommunications, are more than half of the total record creation cost. RLIN is, for us now, the only definitely known method. But it is precisely this knowledge of RLIN and MARC record requirements which prompts an investigation of other methods which might be simpler and less costly.

Outside vendors and processes, such as Carrolton Press, OCLC, or UTLAS, could be used, with various combinations of library and vendor work involved in keying in shelflist data, comparing the keyed in information to a database, creating machine readable records, and editing the results of both the hits and no-hits. In the fall of 1984, a listing of retrospective conversion options, combinations of vendor and library staff effort and costs was prepared. Appendix D is that listing and report. Since that time there have been favorable changes in the type of support that vendors can supply, reductions in charges by vendors, and changes in the databases which are searched.

Vendors, unlike RLIN, are able to accept and process batched records, a more efficient and less expensive procedure than individual processing. The keying in of records for batch processing can be done by lower level staff since it does not involve as much judgment as does pre-RLIN and RLIN work. Instead of staff making judgments about record acceptability, staff select and key in only small portions of the total catalog card record. Such keying is done on microcomputers, a faster process than RLIN because of the ease of operation of the microcomputer and the briefer amount of information keyed in. Telecommunication and machine related costs are significantly lower for the microcomputer in addition.

Batch processing may involve editing and revising after producing the initial conversion product in order to catch or resolve problems. Individual record processing on RLIN handles most problems immediately by necessity but places all records in this process rather than just a few. Thus even though there may be problems to resolve at the end of the batched process, this is still a more efficient method than handling all materials as if they were problems. It is exactly this assumption that was used to create the workflow of the Automation Unit of Monograph Cataloging and output has been significantly greater than prior processing methods.

Costs of outside vendors or processes depend in part on the reliability of certain assumptions made about a collection's composition. For example, the more LC records, the cheaper the product and the less work editing or revising. The sample for the time/cost study in April 1985 showed:

20.2 percent no record
9.9 percent Member Library edition
1.0 percent Library of Congress edition

46.3 percent Member Library exact match

22.7 percent Library of Congress exact match

These percentages, if typical, suggest that editing or additional work by the vendor or the library would need to be done for no record materials, editions, and possibly a significant percentage of the member library records (depending on the database searched) after receiving the initial conversion product in order to complete the conversion of acceptable records for the ILS. Some vendors, such as UTLAS, are willing to sample shelflists to determine these percentages in advance. This would need to be done before accurate cost estimates could be made.

However the combination of the use of microcomputers to key in our own records and the processing by the vendor of this keyed information is an efficient way of accommodating both our collection's unique items and the availability of existing online records. Information keyed in but not resulting in database hits could be expanded to conform in part to the records for database matches. This concentrates work at the end of the process rather than at the beginning, eliminates steps and reduces the need for higher level staff to work on all records.

Another way of reducing cost which holds some attraction, but which has not been considered up to now is a reduction of the CONTENT of the record converted. Last year the number of new materials and the lack of adequate cataloging time to handle all of them in the traditional way led the library to introduce Brief Record Cataloging for certain types of new monograph acquisitions. The Brief Record Cataloging contains only certain elements of the full MARC record and decisions about the content of each record are different than those made for full MARC records.

Pressures facing our retrospective conversion now are very similar to those facing current cataloging --- large numbers of materials to process, inadequate time to process them in a traditional manner, and adequate funding for staff and method. The content of a ReCon record can also be reduced, producing a different on-line record than that presented by the card or by a complete MARC record for the same item. This has not been considered yet for ReCon largely because of the record type required by the grants and the utility that we have been using to produce this record.

The conversion of a record begins with a catalog card regardless of the method. The intellectual effort to integrate a particular item into our collection has already been done. The conversion process transforms this manual card record into machine-readable form. But the current model of a machine readable record follows the full or complete MARC format for all items, and includes all possible record elements, both those used at present and those potentially useful in the future. The question to ask is what elements are needed in a record to ensure full and accurate retrieval by users and staff? Are all the MARC elements that we now use for retrospective conversion needed?

The press of time and the need to make decisions now regarding ReCon make it appropriate to look at record content used for the **NO RECORD** materials more closely. It should be emphasized that this discussion of record content does **NOT** apply to those records resulting from matches on a database. In order to facilitate discussion, eight sample records have been created, with their components selected rather than transcribed from the original card record. See **Appendix E: Part One** for these sample records and their catalog card record. The elements chosen from the cards for these records are basically a subset of the MARC record elements (although the MARC tags have been omitted) rather than complete MARC elements. It is important that these records fit in with other conversion products and with our current cataloging. MARC tags would need to be included to allow this. We called these records **access records.**

In considering what elements to include in an access record, our first concern was for **access** or retrievability. Parts of a record traditionally used for access, such as main entry or subject, were selected as mandatory elements, although limits were placed on the number of such elements (e.g. only two subjects were placed on this mandatory list). Retrievability needed to be combined with recognition however. If an access point revealed a record so spare as to be unrecognizable, no retrieval would actually occur. Therefore parts of the record considered descriptive, such as imprint, had to be considered for inclusion on the list of mandatory elements. See **Appendix E: Part Two** for the lists of mandatory and secondary elements.

The secondary elements are less objective than the mandatory elements. The sample records demonstrate decisions about which secondary elements were useful to each of those eight items. Inclusion of any secondary elements would of course require more time for decision making prior to keying in the record. It should be noted however that tagging and inputting all elements from the catalog card also requires significant time. Cost could be reduced further by not including any secondary elements, but the recognition of items might be reduced to the point of making the items unrecognizable even if retrieved through an access point.

A usable on-line record for the ILS may therefore differ from a catalog card record or a full MARC record. Since on-line searching usually permits key word searches, truncation, boolean searching, and has stop word lists for commonly used words, the access to records, using the same or fewer of the catalog card access points, may actually be greater than the access provided by the card catalog which only occasionally uses stop word lists. Therefore card catalog elements such as alternate titles or reciprocal subject headings (e.g. Great Britain -- Foreign relations -- United States / United States -- Foreign relations -- Great Britain) may be less needed in the on-line catalog than in the card catalog.

Tagging a brief retrospective conversion record of this type, with significantly fewer fields than a full MARC record would entail considerably less staff time. In addition, time would be saved in problem solving since problems seen during the time/cost test [Appendix B] were often related to the tagging of fixed or variable fields which do not exist in the sample records.

Before further considering this type of record for the NO RECORD materials, it is important to recognize the differences caused by internal funding and grant funding. Grant funding, if available, would continue to be important to obtain for whatever part of our total retrospective conversion it could cover. But grants carry with them particular areas of effort and type of record which are usually non-negotiable. Although the library may elect to pursue widescale retrospective conversion and to internally fund a conversion effort which utilizes a form of brief record for no record materials similar to that described above, the grant-funded conversion will be carried on simultaneously according to the guidelines of the grant. Our conversion product therefore would be at least two different types, depending on the source of funding and/or the type of material. A question to resolve would be how to organize such work and whether to have separate units or one divided unit.

Where do we go from here? The concept of an ACCESS record and the issue of retrospective conversion itself need to be discussed in AD's Council. The need to make decisions about policy and committment and the impending ILS make this an urgent consideration. Public Services needs to be involved particularly in a discussion of the secondary elements of the access record in order to determine if generalizations can be made for particular classifications. Tools for creating such records (microcomputers and software) need to be identified and tested. Discussions need to be undertaken with vendors to determine process and cost. The creation and keying of access records needs to be tested for time, process, quality, and level of staff needed to create these records. Public Services needs to test the acceptability of such records. And the Library Administration needs to continue to continue to pursue outside grants and internal sources of funding in order to do retrospective conversion of any kind.

The final conversion products proposed would therefore result from three processes:

1. MARC records through RLIN whose creation was supported by grants
2. MARC records through a vendor whose creation was supported by either grants or internal funding
3. Partial or brief MARC records through a vendor whose creation was supported by grants or internal funding

ASSUMPTIONS FOR RETROSPECTIVE CONVERSION OF MONOGRAPHS

06/24/85

RELATED TO CONVERSION IN GENERAL:

1. That it is desirable to have the bulk of the active collection converted into machine readable form as the ILS begins and to pay as little as possible to obtain the access record acceptable to us.

2. That the number of monograph catalog records to be retrospectively converted is approximately 1.5 million (not including analytics, dissertations, documents, or other locally cataloged or uncataloged materials); that serials are essentially converted and are therefore excluded from ReCon discussions now.

3. That retrospective conversion is **creation of machine records based on selected elements of non-MARC cataloging records;** that one type of retrospective conversion has been developed in-house and has resulted in 175,114 machine records as of March 1985.

4. That materials already available in machine readable form may not be in the form desired for the access record:
   a. that RLIN and OCLC records, including current ReCon efforts on RLIN, are MORE complete than what is essential for the access record
   b. that Geac records not represented on RLIN or OCLC may be LESS complete than what may be needed for access records, but will form part of our ILS
   c. that Geac records not represented on RLIN or OCLC may represent uncataloged or locally cataloged items which might not be part of a centralized ReCon effort

5. That retrospective conversion is NOT cataloging and does not relate to current cataloging practice or decisions; decisions about what is contained in a retrospectively converted record will be different from current cataloging decisions

6. That current cataloging (excluding BRC) will continue to have full MARC records from which certain elements will be selected for an ILS access record; and that this selection will be different from selection for the retrospective conversion access record

7. That the initial ReCon product will not be upgraded at a later date

8. That ILS screen elements and displays are a separate issue from creation of data elements and retrospective conversion

RELATED TO RECORD CONTENT:

9. That cost considerations affect choice and extent of record content for the access record and full MARC is too expensive for the quantity of records that we want to convert for the ILS

10. That our first consideration (after cost) for access record content is our own needs and NOT national considerations

11. That the purpose of retrospective conversion is NOT to replicate either the catalog card or the card catalog but rather to create an access record:
    a. that access is more important than description in an access record
    b. that authority control for access points is essential
    c. that creation of authority records must be undertaken also
    d. that every record should have the primary access elements to meet expectation and need (see Appendix A for primary access elements)

12. That differences of opinion regarding record content for ReCon may represent variations in needs of the disciplines
    a. that it is possible to devise basic access records by discipline (see Appendix A for sample records)
    b. that record elements can be separated into access and descriptive elements and primary and secondary elements.

13. That we will convert from the catalog record in hand and not seek to enhance that record or do maintenance on it (e.g. add subjects)

14. That decisions and discussions about record content for access records are separate from decisions and discussions about ILS screen displays

RELATED TO PROCESSING:

15. That there are a number of machine methodologies and stategies (RLIN and non-RLIN) possible for our ReCon; that RLIN is too expensive and time-consuming to use for the 1.5 million records in its present processing configuration; that it is possible to produce access records in a less expensive way through other sources than RLIN; that local conversion using microcomputers and software appears to be the most economical and quick method to use for retrospective conversion.

16. That grants which support ReCon through RLIN are a drain on local staff resources and detract from future large-scale ReCon efforts; that the utility of the few grant-produced records is likely no greater than the utility of briefer records which could be created through more intense local projects.

17. That processing and maintenance for ReCon should be done in a centralized location and should follow an agreed-upon systematic program via specific classifications, using the Union Shelflist to collect copy and location information; that although different disciplines require different secondary elements for access records, conversion as a whole must be standardized within classifications and in general ways to meet cost and time requirements; that problem-solving will be limited to what is absolutely necessary to convert a record; and that our ReCon access record will not be upgraded at a later date except as needed for bibliographic or other control

18. That whatever process we use for ReCon must have the the technical potential to produce records which can be shared with RLG and other institutions.

****

SUMMARY ASSUMPTIONS TO TEST:

1. That an access record can be developed with primary elements for all cataloged records and with secondary elements either by discipline or in general as applicable to records.

2. That a microcomputer, with software and computer host resources to build a database and magnetic tapefile, is the fastest, most effective processing tool.

3. That a fast, efficient workflow and processing method can be developed in-house to create machine readable records for our collection; that this would be cheaper and faster than other means.

APPENDIX A: PART ONE:
PROPOSED RETROSPECTIVE CONVERSION ACCESS RECORD ELEMENTS

PRIMARY ELEMENTS (mandatory if applicable):

Element:	Type of element
1. CALL NUMBER	access
2. LOCATIONS	descriptive
3. TITLE	access
4. UNIFORM TITLE	access
5. STATEMENT OF RESPONSIBILITY (author,editor,corp.body,etc.) **Limit to two**	access
6. SUBJECTS **Limit to two**	access
7. DATE OF PUBLICATION	descriptive

SECONDARY ELEMENTS (determined by classification and/or record)

Element[1]	Type of element
8. COPY INFORMATION	descriptive
9. ALTERNATE TITLE	access
10. SERIES TITLE FOR MONOGRAPHS	access
11. SUBTITLE	access
12. OTHER RESPONSIBLES: **Maximum of two additional**	access
13. ADDITIONAL SUBJECTS **Maximum of two additional**	access
14. EDITION STATEMENT	descriptive
15. PLACE OF PUBLICATION	descriptive
16. PUBLISHER	descriptive
17. BIBLIOGRAPHY	descriptive
18. COLLATION	descriptive
19. FORMAT(e.g.FILM)	descriptive
20. ILLUSTRATIONS	descriptive
21. INDEX	descriptive
22. ISBN	access?
23. LANGUAGE	descriptive
24. LCCN	access?
25. NOTES	descriptive
26. SIZE	descriptive
27. OTHER SPECIAL ELEMENTS	descriptive

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[1] These elements are not in priority order, but could be arranged by order of importance or priority

APPENDIX A: PART TWO:
SAMPLE ACCESS RECORDS USING PROPOSED PRIMARY AND SECONDARY ELEMENTS

SAMPLE ACCESS RECORDS FOR SPECIFIC DISCIPLINES

Records selected are not necessarily representative of the general population of the discipline. Elements of each record have been separated into primary elements (mandatory for all access records if applicable) and selected secondary elements (proposed by discipline). The catalog card is shown below each sample record to demonstrate the selection made. Ignore spacing, display, missing accent marks, and lack of delimiters in these examples.

---

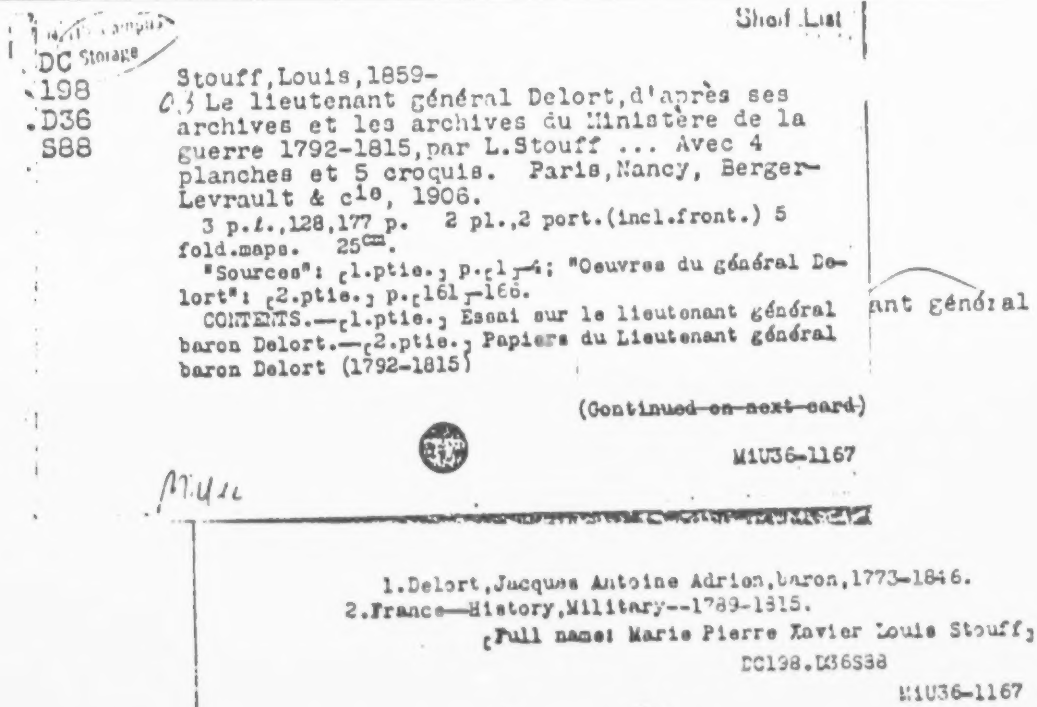
1. DISCIPLINE: HISTORY

Primary elements:

CALL NUMBER:	DC198.D36 S88
LOCATIONS:	BUHR
TITLE:	Le lieutenant general Delort, d'apres ses archives et les archives du Ministere de la guerre 1792-1815
RESPONS.:	Stouff, Louis, 1859
SUBJECTS:	Delort, Jacques Antoine Adrian, baron, 1773-1846 France--History,Military--1789-1815
DATE:	1906

Secondary elements:

ILLUSTRAT.:	YES



Storage

Shelf List

DC
198
.D36
S88

Stouff,Louis,1859-

c.3 Le lieutenant général Delort,d'après ses archives et les archives du Ministère de la guerre 1792-1815,par L.Stouff ... Avec 4 planches et 5 croquis. Paris,Nancy, Berger-Levrault & c^{ie}, 1906.

3 p.*l*.,128,177 p. 2 pl.,2 port.(incl.front.) 5 fold.maps. 25^{cm}.

"Sources": [1.ptie.] p.[1]-4; "Oeuvres du général Delort": [2.ptie.] p.[161]-166.

CONTENTS.—[1.ptie.] Essai sur le lieutenant général baron Delort.—[2.ptie.] Papiers du Lieutenant général baron Delort (1792-1815)

(Continued ~~on next card~~)

M1U36-1167

ant général

1.Delort,Jacques Antoine Adrien,baron,1773-1846.
2.France—History,Military--1789-1815.
[Full name: Marie Pierre Xavier Louis Stouff]

DC198.D36S88

M1U36-1167

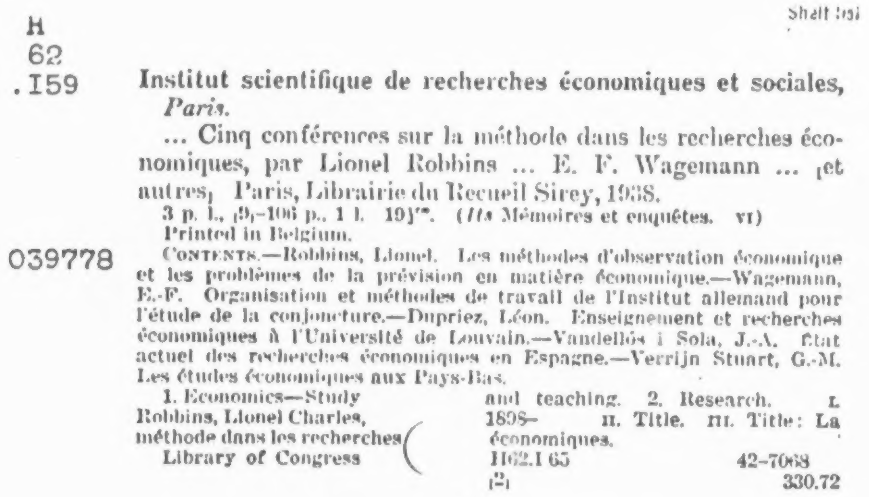
2. DISCIPLINE: SOCIAL SCIENCE

Primary elements:

CALL NUMBER: H62.I59
LOCATION: HATCHER
TITLE: Cinq conferences sur la methode dans les recherches economiques
RESPONS.: Institut scientifique de recherches economiques et sociales, Paris
Robbins, Lionel Charles, 1898-
SUBJECTS: Economics--Study and teaching
Research
DATE: 1938

Secondary elements:

ALT.TITLE: La methode dans les recherches economiques



Shelf list

H
62
.I59

Institut scientifique de recherches économiques et sociales, *Paris.*

... Cinq conférences sur la méthode dans les recherches économiques, par Lionel Robbins ... E. F. Wagemann ... [et autres] Paris, Librairie du Recueil Sirey, 1938.

3 p. l., [9]-106 p., 1 l. 19½ cm. (*Its* Mémoires et enquêtes. VI)

Printed in Belgium.

039778

CONTENTS.—Robbins, Lionel. Les méthodes d'observation économique et les problèmes de la prévision en matière économique.—Wagemann, E.-F. Organisation et méthodes de travail de l'Institut allemand pour l'étude de la conjoncture.—Dupriez, Léon. Enseignement et recherches économiques à l'Université de Louvain.—Vandellós i Sola, J.-A. État actuel des recherches économiques en Espagne.—Verrijn Stuart, G.-M. Les études économiques aux Pays-Bas.

1. Economics—Study and teaching. 2. Research. I. Robbins, Lionel Charles, 1898- II. Title. III. Title: La méthode dans les recherches économiques.

Library of Congress H62.I 65 42-7068
[2] 330.72

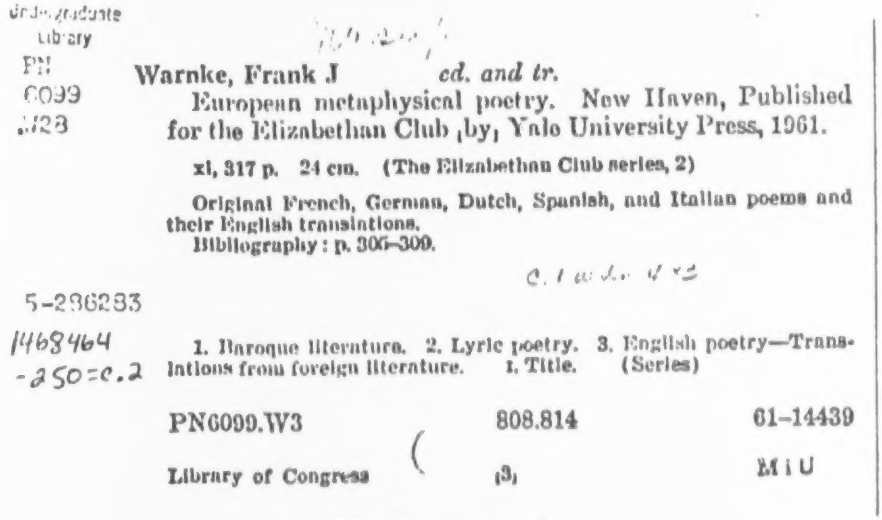
3. DISCIPLINE: LITERATURE

Primary elements:

CALL NUMBER: PN6099.W28
LOCATION: UGL.
TITLE: European metaphysical poetry
RESPONS.: Warnke, Frank J.
SUBJECTS: Baroque literature
Lyric poetry
DATE: 1961

Secondary elements:

SERIES: Elizabethan Club; 2
SUBJECTS: English poetry--Translations from foreign literature
BIBLIOGRAPHY: YES



Undergraduate
Library
PN
6099
.W28

Warnke, Frank J *ed. and tr.*

European metaphysical poetry. New Haven, Published for the Elizabethan Club [by] Yale University Press, 1961.

xi, 317 p. 24 cm. (The Elizabethan Club series, 2)

Original French, German, Dutch, Spanish, and Italian poems and their English translations.
Bibliography: p. 305–309.

C. 1 [illegible]

5-286283

1468464
-250=c.2

1. Baroque literature. 2. Lyric poetry. 3. English poetry—Translations from foreign literature. I. Title. (Series)

PN6099.W3 808.814 61-14439

Library of Congress [3] MiU

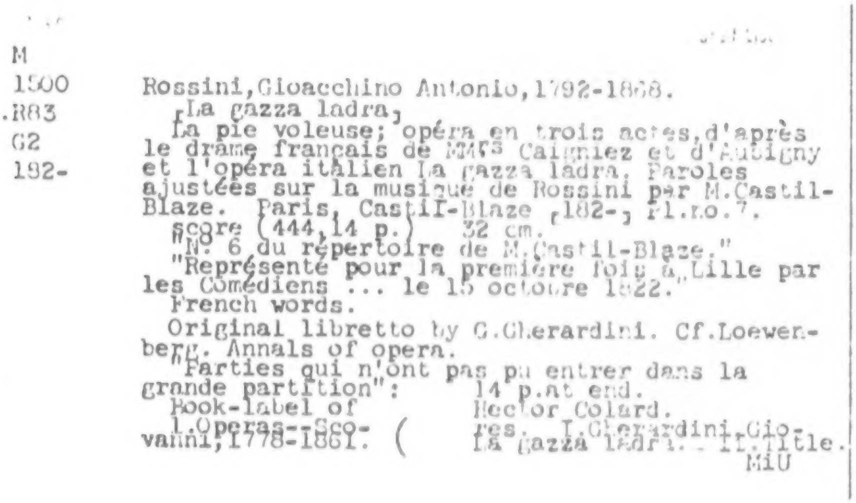
4. DISCIPLINE: MUSIC

Primary elements:

CALL NUMBER:	M1500.R83 G2 182-
LOCATION:	MUSIC
TITLE:	La pie voleuse
UNIF.TITLE:	La gazza ladra
RESPONS.:	Rossini, Gioacchino Antonio, 1792-1868 Gherardini, Giovanni, 1778-1861
SUBJECTS:	Operas--Scores
DATE:	182-

Secondary elements:

FORMAT:	Score
LANGUAGE:	French



M
1500
.R83
G2
182-

Rossini, Gioacchino Antonio, 1792-1868.
[La gazza ladra]
La pie voleuse; opéra en trois actes, d'après le drame français de MM^{rs} Caigniez et d'Aubigny et l'opéra italien La gazza ladra. Paroles ajustées sur la musique de Rossini par M. Castil-Blaze. Paris, Castil-Blaze [182-] Pl.no.7.
score (444, 14 p.) 32 cm.
"N° 6 du répertoire de M. Castil-Blaze."
"Représenté pour la première fois à Lille par les Comédiens ... le 15 octobre 1822."
French words.
Original libretto by G. Gherardini. Cf. Loewenberg. Annals of opera.
"Parties qui n'ont pas pu entrer dans la grande partition": 14 p. at end.
Book-label of Hector Colard.
1. Operas--Scores. I. Gherardini, Giovanni, 1778-1861. (La gazza ladra. II. Title.
MiU

APPENDIX A: PART TWO:
SAMPLE ACCESS RECORDS USING PROPOSED PRIMARY AND SECONDARY ELEMENTS

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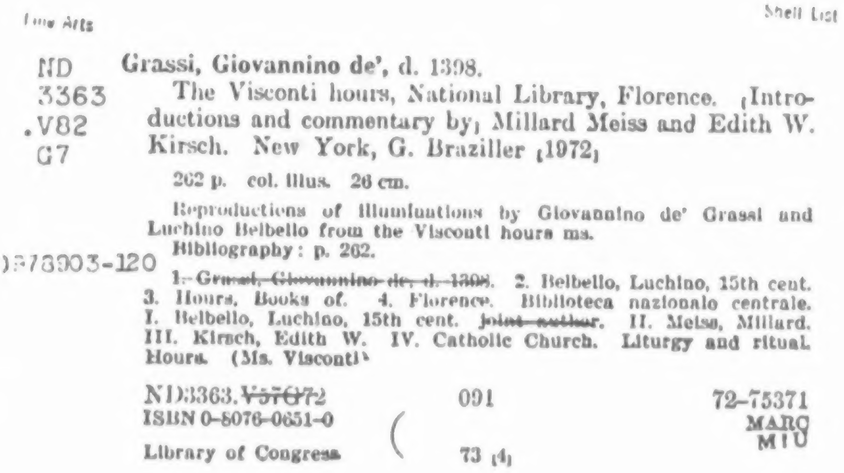
5. DISCIPLINE: FINE ARTS

Primary elements:

CALL NUMBER:	ND3363.V82G7
LOCATION:	FINE ARTS
TITLE:	The Visconti hours, National Library, Florence
RESPONS.:	Grassi, Giovannino de', d.1398
SUBJECTS:	Belbello, Luchino, 15th cent. Hours, Books of
DATE:	1972

Secondary elements:

OTHER RESP.:	Meiss, Millard Kirsch, Edith W.
ADD.SUBJ.:	Florence. Biblioteca nazionale centrale
BIBLIOG.:	YES
ILLUSTRAT.:	YES
LCCN:	72-75371
NOTES:	Reproductions of illuminations



Fine Arts

Shelf List

ND
3363
.V82
G7

Grassi, Giovannino de', d. 1398.

The Visconti hours, National Library, Florence. ⌊Introductions and commentary by⌋ Millard Meiss and Edith W. Kirsch. New York, G. Braziller ⌊1972⌋

262 p. col. illus. 26 cm.

Reproductions of illuminations by Giovannino de' Grassi and Luchino Belbello from the Visconti hours ms.

Bibliography: p. 262.

)F78903-120

~~1. Grassi, Giovannino de, d. 1398~~. 2. Belbello, Luchino, 15th cent. 3. Hours, Books of. 4. Florence. Biblioteca nazionale centrale. I. Belbello, Luchino, 15th cent. ~~joint author~~. II. Meiss, Millard. III. Kirsch, Edith W. IV. Catholic Church. Liturgy and ritual. Hours. (Ms. Visconti)

ND3363.~~V57G72~~ 091 72-75371

ISBN 0-8076-0651-0

MARC
MIU

Library of Congress 73 ⌊4⌋

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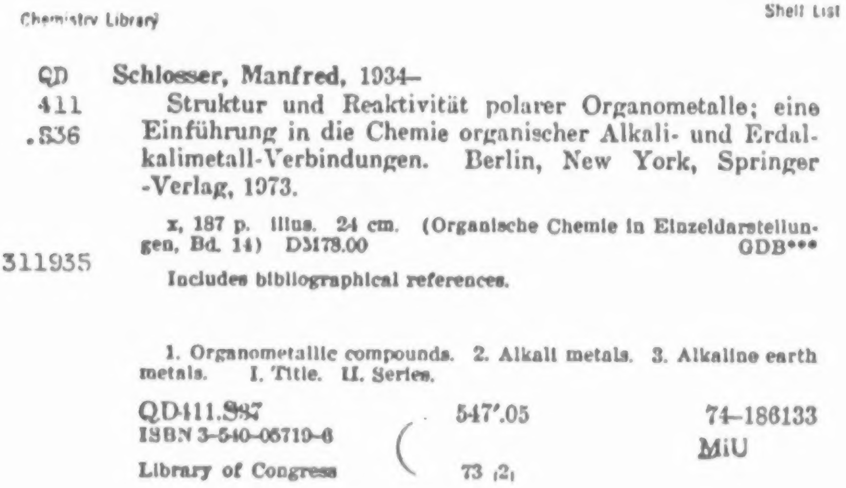
6. DISCIPLINE: SCIENCE

Primary elements:

CALL NUMBER: QD411.S36
LOCATION: CHEMISTRY
TITLE: Struktur und Reaktivitat polarer Organometalle
RESPONS.: Schlosser, Manfred, 1934-
SUBJECTS: Organometallic compounds
Alkali metals
DATE: 1973

Secondary elements:

SERIES: Organische Chemie in Einzeldarstellungen; bd.14
ADDIT.SUBJ.: Alkaline earth metals



Chemistry Library

Shelf List

QD
411
.S36

Schlosser, Manfred, 1934–

Struktur und Reaktivität polarer Organometalle; eine Einführung in die Chemie organischer Alkali- und Erdalkalimetall-Verbindungen. Berlin, New York, Springer-Verlag, 1973.

x, 187 p. illus. 24 cm. (Organische Chemie in Einzeldarstellungen, Bd. 14) DM178.00 GDB***

311935

Includes bibliographical references.

1. Organometallic compounds. 2. Alkali metals. 3. Alkaline earth metals. I. Title. II. Series.

QD411.S37 547'.05 74-186133
ISBN 3-540-05719-6
MiU
Library of Congress 73 [2]

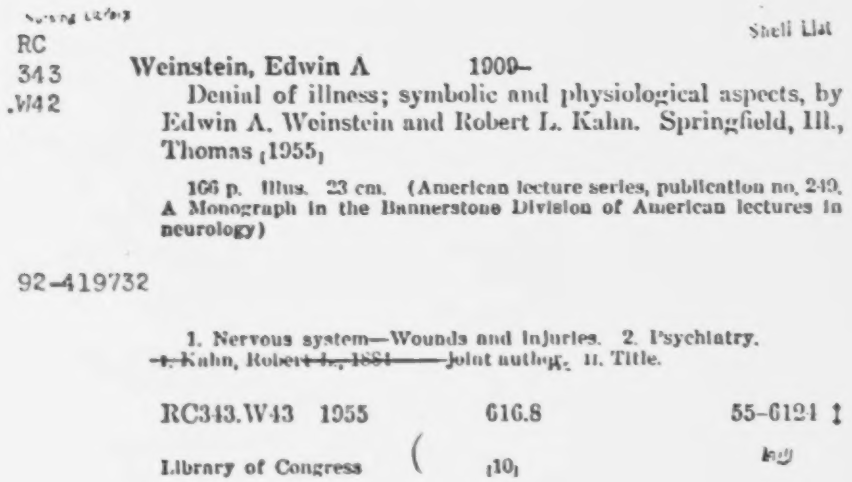
7. DISCIPLINE: MEDICINE

Primary elements:

CALL NUMBER:	RC343.W42
LOCATION:	NURSING
TITLE:	Denial of illness
RESPONS.:	Weinstein, Edwin A., 1909-
SUBJECTS:	Nervous system--Wounds and injuries Psychiatry
DATE:	1955

Secondary elements:

SUBTITLE:	symbolic and physiological aspects



Nursing Library

Shelf List

RC
343
.W42

Weinstein, Edwin A 1909–

Denial of illness; symbolic and physiological aspects, by Edwin A. Weinstein and Robert L. Kahn. Springfield, Ill., Thomas [1955]

166 p. illus. 23 cm. (American lecture series, publication no. 249. A Monograph in the Bannerstone Division of American lectures in neurology)

92-419732

1. Nervous system—Wounds and injuries. 2. Psychiatry. ~~I.~~ Kahn, Robe~~rt L., 1884——~~joint author. II. Title.

RC343.W43 1955 616.8 55-6124 ‡

Library of Congress ([10]

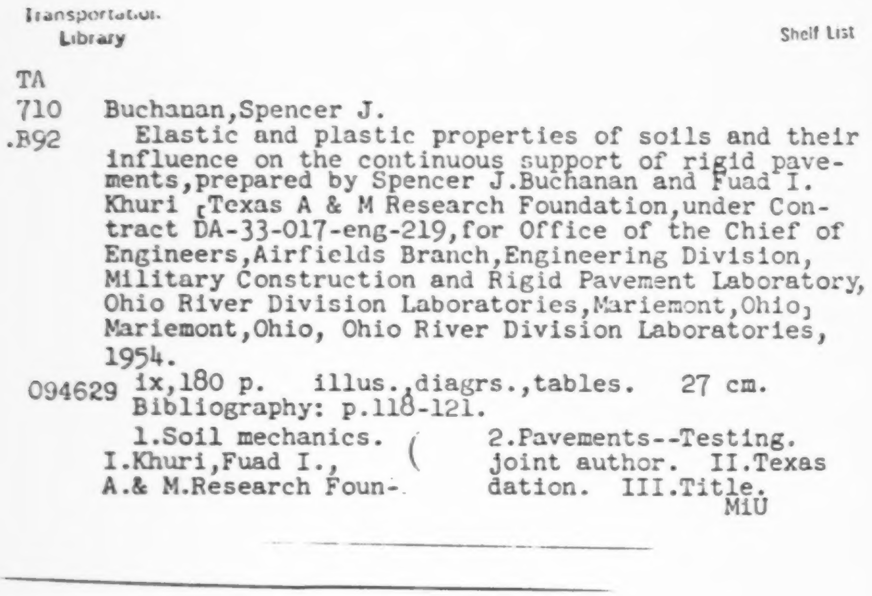
8. DISCIPLINE: TECHNOLOGY

Primary elements:

CALL NUMBER:	TA710.B92
LOCATIONS:	TRANSPORTATION
TITLE:	Elastic and plastic properties of soils and their influence on the continuous support of rigid pavements
RESPONS.:	Buchanan, Spencer J. Khuri, Fuad I.
SUBJECTS:	Soil mechanics Pavements--Testing
DATE:	1954

Secondary elements:

ILLUSTRAT.:	YES



Transportation
Library

Shelf List

TA
710
.B92

Buchanan,Spencer J.

Elastic and plastic properties of soils and their influence on the continuous support of rigid pavements,prepared by Spencer J.Buchanan and Fuad I. Khuri [Texas A & M Research Foundation,under Contract DA-33-017-eng-219,for Office of the Chief of Engineers,Airfields Branch,Engineering Division, Military Construction and Rigid Pavement Laboratory, Ohio River Division Laboratories,Mariemont,Ohio] Mariemont,Ohio, Ohio River Division Laboratories, 1954.

094629 ix,180 p. illus.,diagrs.,tables. 27 cm.
Bibliography: p.118-121.

1.Soil mechanics. 2.Pavements--Testing. I.Khuri,Fuad I., joint author. II.Texas A.& M.Research Foundation. III.Title.

MiU

06/19/85

RETROSPECTIVE CONVERSION TASK FORCE

REPORT ON THE SAMPLE OF THE NON-LC SHELFLISTS

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Revised June 1986

CONTENTS

Introduction 1

Scope of Sample 1

Sample Methodology 2

Sample Results 3

Part I. Card Information 3

Type of Card 3

Format 4

LCCN/ISBN 5

Location and Copies 5

Classification Schemes 5

Language 6

Cards with More than One Item 6

Date of Publication 7

Part II. RLIN, OCLC, NUC Searching Results 7

Searching Problems/Difficulties 8

RLIN/OCLC Search 8

RLIN Search 9

OCLC Search 10

Analysis 10

NUC Search 11

Part III. LCCN Search Information 11

Shelflist Cards 12

NUC, OCLC, RLIN Search 12

"Problem Records" 12

Part IV. Circulation Searching Information 13

CLSI Search. 13

Accessibility and Circulation Policy. 14

Shelf Check.. 15

Part V. Summary. 16

Part VI. Conclusion and Comparison with the LC Sample.. 18

Appendix A: Inventory of Library Holdings

Appendix B: Summary by Shelflist

Appendix C: Sample Work Form

INTRODUCTION

The Retrospective Conversion Task Force reconvened for its second year in September, 1985. The Online Catalog Steering Committee directed the Task Force to sample and report on material held by the Brown University Library that was not included in the first year's sample of the LC-classified shelflist. This charge was consistent with the Task Force's own recommendation from its *Report on Shelflist Sample* (July, 1985).

The report that follows details the results of the sample of the non-LC shelflists. Coupled with the results from the first sample of the LC shelflist, the data now in hand will provide a solid information base upon which to recommend viable retrospective conversion options tailored to the Brown University Library's own needs.

SCOPE OF SAMPLE

Initially, the Online Catalog Steering Committee asked the Task Force to sample only specific collections: Harris, Chambers, Archives, Kimball, Rider, Sackett. However, after inventorying the non-LC shelflists (see Appendix A), the Task Force felt that the sample should be expanded to cover most non-LC classed material rather than be limited to a few selected collections. Therefore, the Task Force recommended that the material covered in the second sample be based on classifications rather than on collections or locations.

In reviewing the various shelflists, a variety of classifications were noted:

Cutter - general system, used before LC
Dated - date of publication is the call number
Harris - largest local scheme
Library of Congress (LC) - most, but not all, were included in the first sample
Numbered - local scheme including call numbers beginning 1-,2-,3-,4-
Numerical - call number is a random or accession number
Other local systems - e.g., Chambers, Anne S.K. Brown, Boggs, Film copy, Microcard
Superintendant of Documents (SuDoc) - U.S. Government publications not classed in LC.
Unclassed (but cataloged) - e.g., Lincoln unclassed
Unclassed, uncataloged (but available for use) - e.g., Pembroke Temporaries

Some collections are classified using more than one scheme; for example, Rider, Starred Books, Williams Table, Gardner. Some non-LC classification schemes are spread among a number of different collections; e.g., Cutter (Rock, Starred Books, Archives), numbered (Rock, Rider, Archives).

The Task Force decided to include in this sample as much of the non-LC material classed in the above schemes as was possible. The criteria for inclusion were:

1. There must be a usable, fairly complete shelflist or shelflist equivalent: this eliminated Metcalf, Endicott, Broadsides, and Manuscripts.

2. The portions of the shelflist that are included in other shelflists must be easily segregated for sampling; this eliminated Dated Books (there is no separate shelflist of items using the date as the call number).

3. The size of the shelflist must be large enough to fit into the random sample methodology (9 inches was the cutoff point); this eliminated Annmary Brown, Asa Cushman, Dorr, Baptist, Williams Table, and Napoleon.

4. The primary type of the material in the shelflist must be one for which a MARC format exists; this eliminated broadsides and stamps.

5. The material is officially "accessioned," and the intent is to retain most or all of it indefinitely; this eliminated "Pembroke Temporaries," "extras," all uncataloged material on the Technical Services side of level C, "storage," and unclassed textbooks ("Dept of Education").

6. LC-classed items were excluded even if not in last year's LC sample; this eliminated Corthell (Red) and sheet music.

The sample treated all the non-LC shelflists as one. The survey began with the Harris shelflist, proceeded to the Annex, then to the Documents Checklist Supplement, to the John Hay shelflists, and finally to Pembroke. The shelflists that the Task Force included in the sample and the estimated number of titles in each, are:

Anne S.K. Brown (Books)(20,000)
Chambers Dante (1,000)
Cutter (60,750)
Documents (non-LC)(67,500)
Farmington (6,700)
Film Copy (1,040)
Harris (150,670)
Kimball (1,180)
Lincoln (unclassed) (3,250)
Maps (Boggs & unclassed) (1,980)
Microcard (1,820)
Numbered, 1- (17,200)
Numbered, 2-,3- (6,310)
Numbered, 4- (4,400)
Rider (not incl. in other s.l.)(4,010)
Sackett Scores (700)
Sound recordings (Hay) (6,900)
Sound recordings (Pembroke) (3,165)
Sound recordings (Rock, non-LC) (3,050)

Taken together, these shelflists cover approximately 361,625 titles. This is fewer than one-half of the roughly 750,000 titles in the LC shelflist. In addition to these, the Library owns a great many items not covered by the Task Force in either sample; most of these are special formats. (See Appendix A, "Inventory of Library Holdings.")

SAMPLE METHODOLOGY

The system utilized for the sample of the non-LC shelflists was the same as that used for the sample of the LC shelflist carried out last year. It was described by Aveny, Butler, and Scholz in the March/April 1978 *Library Technology Reports*. The procedure involved the use of 10 numbered rulers, each of which were laid on top of ten shelflist drawers. Cards were pulled based upon a pre-determined mark on each ruler. Markers were put in place while the cards were copied onto worksheets and then refiled. This procedure continued 10 drawers at a time until the minimum sample size (at least 384) was reached. Special procedures were devised to deal with Lincoln unclassed which is not in card form. For this collection, the number of titles from the front of a drawer to the pre-determined ruler mark was calculated and this figure was utilized to select titles from the printed list. This sample methodology insures a 95 percent confidence interval with a permissible error of not more than 5 percentage points.

The non-LC shelflists presented some peculiar problems in applying this methodology. For one, there were not 384 drawers in the shelflists that made up the sample (to qualify, a drawer had to have 9 inches worth of cards in it). To deal with this problem, David Rich recommended that two runs be made through the shelflists. The first time through, a card would be pulled from every drawer. The second run would sample every third drawer. Sampling the Documents Checklist Supplement posed some problems as well. The drawers in the Checklist Supplement are smaller than those in the rest of the shelflist and nearly 40% of the titles classed between A1-Y3.Z are classed in LC. To meet these problems, David recommended that a card be pulled from every other drawer the first time through and every 6 drawers during the second pass. If in the sampling process, an LC classed card was selected, the card behind it was pulled instead. The total sample included 395 cards.

The Task Force revised the worksheet used to code the results of the sample to reflect the nature of the material being analyzed. For example, the call number stem was changed to "classification scheme" and dates "Before 1700" and "1701-1800" were added. A copy of the workform is attached as Appendix C. Throughout the course of the sample, decisions were made regarding searching, coding, matching, etc. These decisions are documented in the minutes of the Task Force's meetings and will not be repeated here.

SAMPLE RESULTS

Part I. Card Information

Type of Card:

One major difference between the cards in this sample and those in last year's, is that the majority of the cards in the non-LC shelflist are half-sized. As a result of this, tracings are eliminated from most of the non-LC shelflist cards and Library of Congress card numbers (LCCNs) are eliminated from Library of Congress card images. The Task Force identified 8 types of cards in the course of the non-LC shelflist sample. These groups are:

1. OCLC - Cards produced on OCLC system and already in machine-readable form.
2. RLIN - Cards produced on RLIN and already in machine-readable form.
3. LC Card - Library of Congress card image, no alterations.
4. LC Card Different Date - A library of Congress Card altered to indicate that Brown owns a copy with a different date.
5. LC Card Different Edition - A Library of Congress card altered to indicate that Brown owns a different edition.
6. Local Cataloging - *No cards in Main Catalog.*
7. Local Cataloging - No LCCN on shelflist or on main entry in Main Catalog.
8. Local Cataloging - LCCN from main entry in Main Catalog.

This year the Task Force changed category number 6 from "Local cataloging with LCCN on the shelflist card" to "Local cataloging with no cards in Main Catalog," in order to reflect the many titles in the sample which are not represented in the Main Catalog. The shelflists which fell under this category were Government Documents, the A.S.K. Brown Collection, and sound recordings. Thus, for these cards, the Main Catalog could not be checked for LCCNs.

The sample revealed the following pattern:

Type of Shelflist Card

	# Titles	Percent
OCLC	16	4.1
RLIN	18	4.6
LC Card	66	16.7
LC Different Date	2	.5
LC Different Edition	5	1.3
Local: No Cards in Main	124	31.4
Local: No LCCN	139	35.2
Local: LCCN from Main	25	6.3

Only 8.6% of the sample is already in machine-readable form, in comparison to 24.3% of the LC shelflist sample. 33 of the 34 OCLC/RLIN cards are in the Harris Collection.

Including variants, 73 shelflist cards (18.5%) were LC images; however, all except 5 were trimmed to half-size and, therefore, did not include LCCNs. The LCCNs for these are on the main entries in the card catalog. (In comparison, 26.5% of the LC sample were Library of Congress cards with LCCNs intact.) The remaining 288 cards (72.9% of the sample) were locally produced. By checking the main card catalog for these, when possible, the Task Force was able to find only 24 (6.1%) LCCNs. Thus, 261 cards (66.1% of the sample) are not machine-readable and have no LCCN on the shelflist card or in the card catalog; this compares to 21.6% of the LC sample.

Format:

The sample showed 86.1% of the shelflist cards to be monographs, 6.1% serials, 3.5% musical scores, .8% maps, and 3.5% sound recordings. The LC sample showed 95.5% to be monographs, 3.2% serials, .9% scores, .2% maps and .2% other. Thus, the non-LC shelflists are nearly 14% non-monographs, as compared to less than 5% of the LC shelflist.

Record Format

	# Titles	Percent
Monograph	340	86.1
Serials	24	6.1
Score	14	3.5
Map	3	.8
Sound recordings	14	3.5

LCCN/ISBN:

In this sample, 12 shelflist cards (3.0%) contained LCCNs and 5 cards (1.2%) contained ISBNs as well as LCCNs. Of the 17 with LCCNs, 9 are RLIN or OCLC cards, including all 5 that have ISBNs. The total of 17 (4.3%) of the sample with LCCNs on the shelflist card is significantly lower than the 47.1% in the LC sample. This is due to the nature/age of the material, former cataloging practices, and half-sized cards. These results show that conversion from the non-LC shelflists relying on LCCN, ISBN, or ISSN as the primary search strategy is unlikely to be productive.

Location and Copies:

Each shelflist card was coded to indicate the location and number of copies held for each title sampled.

The number of sample titles held by each library is as follows:

Library Location

	# Titles	Percent
Rockefeller	157	39.7
Sciences	3	.7
Pembroke	4	1.0
John Hay (not incl. Gardner)	235	58.9
Total	399	100.3

This total exceeds the sample number of 395 because several titles are held by more than one library.

Classification Schemes:

The Task Force identified 9 different groupings of classification schemes used in the Brown Library system (other than the Library of Congress). These are Cutter, Harris, Superintendant of Documents (SuDoc), Numbered, Numerical Accession, Dated, Unclassed (but cataloged), Unclassed and uncataloged, Other (Chambers, some sound recordings, Anne S. K. Brown, Boggs). Cards pulled for the sample were coded as follows:

Classification Scheme

Scheme	# Titles	Percent
Cutter	49	12.4
Harris	169	42.8
Numbered	24	6.1
Numerical Accession	20	5.1
Other	40	10.1
SuDoc	88	22.3
Unclassed (but cataloged)	5	1.3

The Harris Collection represents the largest segment of the non-LC collections. Documents make up the second largest group of cards pulled for the sample (22.3%) and Cutter the third largest (12.4%). However, considering information from the title count for the National Shelflist Survey which showed 67,500 (18.7%) non-LC document titles and 60,750 (16.8%) Cutter titles, the documents appear to be over represented and the Cutters under-represented in the sample. There are several factors that account for the under-representation of the Cutters. First, two drawers of Cutter titles (ANs & APs) are located at the front of the LC shelflist, not with the Cutter shelflist drawers in the Annex. These two drawers were overlooked in the sample. Second, since the Cutters are a closed collection, the shelflist drawers are filled more than shelflist drawers for collections to which cards are added on an on-going basis. This could account for the under-representation of Cutter titles. The Documents shelflist comprises two sections: the section A1.-Y3.Z which contains about 60% of materials with SuDocs numbers as well as roughly 40% of materials which are classified in LC; and, the section Y4.A-ZZ which contains only materials with Sudocs numbers. The Task Force made allowance for both short Documents drawers, and the fact that 40% of the titles in the section A1.-Y3.Z are classed in LC but apparently did not compensate enough. Thus, the documents are over-represented.

Half of the titles (20) in the "other" category represent titles in the Anne S. K. Brown Military Collection. These account for 5.1% of the total sample. The other significant collection not specifically cited above is Archives which is included in the "numbered" category. There were 16 Archives cards in the sample or 4.1% of the total. There were 5 "unclassed (but cataloged)" items, 4 of which represent cards from the Lincoln Collection.

Language:

The information from the sample on the language of the material in the non-LC shelflists shows 87.3% in English, 11.9% in Roman non-English, and less than 1% in non-Roman languages. The LC sample found 68.2% in English, 26.4% in Roman non-English, and 5.4% in non-Roman languages.

There are, however, two collections which the sample shows to be significantly affected by the presence of foreign language material. Those are the Farmington Collection which is entirely in Italian and the Anne S. K. Brown Military Collection. The foreign material in the latter amounted to 50% of the cards pulled from that collection. Together these 2 collections account for 36.1% of the Roman non-English titles in the sample.

Language

	# Titles	Percent
English	345	87.3
Non-Roman	3	.8
Roman Non-English	47	11.9

Cards with More than One Item:

In the LC shelflist sample, there was a category for dashed-on entries. For this sample, the Task Force found that some cards had more than one item on them although they were not dashed-on entries. Six such cards were discovered in the sample. They account for 1.52% of the total. Although this is not a large number, the fact that it is measurable at all is significant. In the entire LC shelflist sample there were no dashed-on entries. Further, two-thirds of the cards with more than one entry on them were documents. These represent 4.5% of the cards pulled from the Documents Checklist Supplement.

Date of Publication:

Results from the sample regarding date of publication are as follows:

Date of Publication:

	# Titles	Percent
No Date	24	6.1
Before 1700	1	.3
1701-1800	6	1.5
1801-1850	28	7.1
1851-1900	56	14.2
1901-1967	184	46.6
1968-	96	24.3

As would be expected, these results show that the material in the non-LC shelflists tends to be older than that contained in the main LC shelflist. Excluding titles without a date of publication, 91 (24.5%) were published before 1901. This compares with just over 10% in the LC shelflist sample.

Of the pre-1901 items, 65.9% are locally produced cards, 27.5% are LC cards, and 6.6% are RLIN or OCLC. Nearly half (45.1%) of the pre-1901 items are Harris, and one-quarter are Cutters. In fact, nearly half (46.9%) of Cutter is pre-1901.

Since the *Documents Checklist* is utilized for titles published prior to 1901, the sample did not yield anything from the Documents Checklist Supplement with an imprint prior to that date. The supplementary card file did not begin to take shape until around 1910.

Material dated 1901-67 accounts for 49.6% of the sample that has dates, not significantly different from the 53.8% in the LC sample. Only 8 (4.4%) of this group are represented by RLIN/OCLC cards while 50 (27.2%) are LC cards, and 126 (68.5%) are locally-produced. 52.7% of the 1901-67 group are Harris, comprising over 57% of that collection. About one-third of SuDocs and Cutters are 1901-1967.

The 96 items in the sample published after 1967 make up 25.9% of the items that have publication dates, somewhat lower than the 36% of the LC sample. This group accounts for 58.8% of the RLIN/OCLC cards, but only 20.8% of post-1967 items are OCLC/RLIN. The remaining 79.2% are all locally-produced. 64.6% of the post-1967 group are not represented in the card catalog; this correlates with the fact that 59.4% are SuDocs, representing nearly two-thirds of the documents in the sample.

Part II. RLIN, OCLC, NUC Searching Results

The Task Force searched the sample in RLIN, OCLC, and NUC to determine what portion is represented in each of these sources. The objectives were twofold:

1. Take a quantitative measure of the number of records matching our holdings in each database and NUC.
2. Evaluate the quality of these records for possible conversion.

All 395 records were searched in both the RLIN and OCLC databases. 174 items were searched in the *National Union Catalog* (NUC). The 221 records which were not searched in NUC included those for which we found an LC card number in the shelflist, the main card catalog or RLIN/OCLC. The Task Force assumed that LC cataloging would be available for all of these. Also cards already in machine-readable form were not searched.

Searching Problems/Difficulties

In general, the non-LC shelflist cards present two types of problems when searching for bibliographic records:

> 1) Some of the problems are due to the nature of the materials searched: obscure or unique items, older imprints, special formats such as sound recordings, maps, artificial collections, etc. When searching these items, one needs to use a variety of search keys (algorithms) or search strategies. A good search will not be limited to one option. The searcher has to insure that all alternatives have been explored and that there is, indeed, no record for the item.
>
> 2) The other cause of difficulty is the nature of our records. Over 95% of the non-LC shelflist cards did not have an LC card number. Since numerical search keys are the fastest way to retrieve records from RLIN or OCLC, the lack of them added to the time which had to be devoted to searching. Brief shelflist records lacking publisher and/or date of publication, edition statement or subtitle prevented the searcher from being assured that he/she had a "perfect match" for all records. Government documents shelflist cards are arranged by groups of publication under issuing agency. Under each entry are listed the *titles* for the individual pieces received. The Library of Congress catalogs most of these materials as monographs and rarely uses a title as the main entry. Since NUC does not provide title added entries, the "hit rate" was far greater for government documents on OCLC/RLIN than in NUC.

RLIN/OCLC Search

For the RLIN and OCLC searches the following types of coding were adopted:

1. *Brown record, exact match.* This represents a record input by Brown which matches exactly our shelflist.

2. *Brown record, different edition, copy or location.* This represents a record input by Brown which is very close to the shelflist record, but shows a different edition, copy or location.

3. *LC record: exact match.* These records are Library of Congress cataloging and match exactly our shelflist information. Non-MARC as well as MARC records are included here.

   Only records which had all of the following characteristics were considered LC exact: cataloging value "9110" or "9120;" source: blank; cataloging source 040 indicating input from Library of Congress.

4. *Member record: exact match.* These are records from libraries other than the Library of Congress that match exactly our shelflist information.

5. *LC/Member record, variant edition.* These are either Library of Congress or member library records for editions which differ from ours. This includes variations such as different printings, different editions, places of publication, publishers, dates, pagination, series which are not identical to our shelflists.

   In order to be coded as a variant edition, the author and title had to match, but the other bibliographic information could vary.

6. *Not found:* these were not found at all in the databases.

Although all cards were searched in RLIN and OCLC, the 34 records already in machine-readable form have been excluded from the following charts and analyses.

RLIN Search:

A. As coded

	# Titles	Percent
BU Diff Ed	4	1.1
LC Exact	41	11.4
Memb Exact	73	20.2
Inexact	30	8.3
Not Found	213	59.0
	361	

B. Consolidated

	# Titles	Percent
Exact match	114	31.6
Inexact match	34	9.4
Not found	213	59.0
	361	

OCLC Search:

A. As coded

	# Titles	Percent
LC Exact	41	11.4
Memb Exact	144	39.9
Inexact	38	10.5
Not Found	138	38.2
	361	

B. Consolidated

	# Titles	Percent
Exact match	185	51.3
Inexact match	38	10.5
Not found	138	38.2
	361	

Analysis

From the results of the consolidated tables of items in need of conversion, one notes that the searching "hit rate" in OCLC for exact match (LC or member) reaches a total of 185 (51.3%) as compared to 114 in RLIN (31.6%). Both of these are significantly lower than the "hit rates" in the LC sample: 76.2% for OCLC and 52% for RLIN.

The following table demonstrates that the hit-rates on RLIN and OCLC varied widely according to the specific shelflist involved.

Type of Classification by Data Base Search

	Number searched	OCLC exact match	RLIN exact match
Accession #	20	5 (25.0%)	2 (10.0%)
Cutters	48	31 (64.6%)	20 (41.7%)
Harris	136	58 (42.6%)	22 (16.2%)
Numbered	24	5 (20.8%)	1 (4.2%)
Other	40	15 (37.5%)	11 (27.5%)
Docs.	88	67 (76.1%)	58 (65.9%)
Unclassed	5	4 (80.0%)	0 (00.0%)
Total	361	185 (51.2%)	114 (31.6%)

NUC Search:

The NUC search was coded as follows:

1. Brown record, exact match (Brown cataloging)
2. Exact match, LC or member library
3. Inexact match, variant edition
4. Not found
5. Not searched

	# Titles	Percent
Found Brown Cat	36	9.1
Found Exact Match	52	13.2
Found Inexact Match	12	3.0
Not in NUC	72	18.2
Not Searched		
RLIN/OCLC	34	8.6
Assumed LC	116	29.4
LC cards	73	18.5

189 (52.3% of the non-machine-readable records) were LC or assumed to be LC and, therefore, were not searched. Of those records that were searched, 27.7% were found, which gives a total of 289 records (80.1%). In the non-LC sample, however, it should be noted that 36 of the 102 records found in NUC are the result of Brown original cataloging, and 12 are inexact matches, leaving 241 (66.8%) for which useful additional cataloging information was found. By comparison, approximately 90% of the material in the LC sample could be found in NUC.

Part III. LCCN Searching Information

In taking the shelflist sample, one of the primary objectives was to determine how difficult or easy it would be to convert titles to machine-readable form by matching them against already existing machine-readable databases. Since several of the companies offering retrospective conversion services prefer to match by LCCN, we decided to look closely at the shelflist cards to determine the percentage of LCCNs, the number of LCCNs that could be obtained, and the characteristics of records having or lacking LCCNs. The presence of an LCCN is also an indication that LC cataloging was done for the title, thereby increasing the likelihood of finding a match in databases.

The following chart summarizes the results of the LCCN searching:

Sample Size -	395
Already in machine-readable form -	34
LCCN on shelflist -	8
LCCNs found in Main -	90
LCCNs found in RLIN/OCLC/NUC-	110
Titles w/o LCCN but found in RLIN/OCLC-	44
Copy found in NUC-	41
"Problem Records," not located anywhere	68

Shelflist Cards:

Of the 395 shelflist cards included in the sample, 34 (8.6%) were either OCLC or RLIN cards, already in machine-readable form, and so removed from consideration in this section. Of the remaining 361 shelflist cards, 8 contained LCCNs (5 LC cards and 3 in-house cards). Of the shelflist cards without LCCNs, 90 have LCCNs in Main.

Therefore, after the search of the main catalog, LCCNs for 98 of the 361 non machine-readable records had been located. Thus, 263 of the 361 candidates for conversion lacked an LCCN on either the shelflist card or the main entry. This represents 72.9% of the titles to be converted. In contrast, the LC sample showed only 29.4% of the titles to be converted lacked an LCCN after a check of the main catalog.

NUC, OCLC, RLIN Search:

By searching RLIN, OCLC, and NUC, an additional 110 LCCNs were found (12 in RLIN, 30 in OCLC, 31 in both RLIN and OCLC, and 19 in NUC). Thus, through a combination of searches, LCCNs could be found for 208 of the 361 records to be converted (57.6%). The comparable figure from the LC sample was 86.9%.

"Problem Records:"

After the searches for LCCNs in the main catalog, RLIN, OCLC, and NUC, there remained 153 records. These 153 records represent 42.4% of the records to be converted in this sample. Despite the fact that no LCCNs could be found for these records, many of them exist in machine-readable form in RLIN and/or OCLC, without LCCNs attached. Of this group, 4 were found in RLIN, 22 were found in OCLC, and 18 were available in both databases. By this means, 44 titles lacking LCCNs were found in machine-readable form.

This left 109 titles (30.2% of the non-machine readable records) for which LCCNs were not located by any means, and which did not exist as exact matches in either RLIN or OCLC. By searching NUC, copy for 41 of these titles was found; however, 24 of these were Brown's own record. The remaining 68 titles (18.8% of the titles to be converted) represent the real "problem records." In contrast, the LC shelflist sample found 5.5% of the titles in need of conversion to be "problem records."

In examining these titles, we found the following:

- 11 were sound recordings (6 of them 78 rpm) *(there were 14 sound recordings in the sample)*
- 8 were Government Documents *(there were 88 documents in the sample)*
- 2 were maps *(there were 3 maps in the sample)*
- 2 were Farmington titles, in Italian *(there were 7 Farmington titles in the sample)*
- 15 were Harris cards, (1 was in Yiddish, 1 was French-Canadian, 1 was a songster, and 1 was a high school literary magazine) *(there were 169 Harris cards in the sample)*
- 8 were A.S.K. Brown titles, (2 were bound volumes of plates, and 1 was a piece of sheet music) *(there were 20 A.S.K. Brown titles in the sample)*
- 12 were Archives titles, (5 were theses, 1 was a scrapbook, and 1 was a special issue of the *Brown Daily Herald*) *(there were 16 Archives titles in the sample)*
- 5 were cards pulled for Film and Microcards, (2 were in Russian, and 2 were for items whose original editions were located in NUC) *(There were 10 cards in the sample from the film & microcard shelflists)*
- 1 was a card pulled from the Chambers Dante shelflist for a 1568 Italian edition *(there were 2 Chambers Dante cards in the sample)*
- 4 dealt with R.I. history, (2 from Rider, and 2 from the general numbered class).

The conclusions that can be drawn from these left-over records support the common-sense notion that many records in the non-LC shelflists must be examined carefully to determine the methodology most suitable for conversion. One would not expect to find Yiddish material or high school literary magazines in the databases unless we had put them there, since the Harris Collection is such a repository of scarce material. Likewise, the Rhode Island history collections (2-,3-), classified by the numbered and numerical accession systems, contain many titles not readily found elsewhere, as well as manuscript material classified as printed books. The same is true for Brown University material (1-), as shown by the theses and scrapbook pulled for this survey. The A.S.K. Brown Collection, arranged on the shelves in a unique manner which presupposes thorough knowledge of the material, also contains artificial collections, as well as sheet music, in its catalogue of printed books.

68

In sum, of these 75 titles, 23 can be considered non-printed book formats (sound recordings, maps, sheet music, scrapbooks, etc.) and 8 can be considered unpublished (theses, University reports, &c.). These kinds of titles might require recataloging as a means of conversion, or would come under the cataloging requirements of special formats, such as manuscripts or sheet music. They account for 8.6% of the titles in need of conversion.

Part IV. Circulation Searching Information

CLSI Search:

The report on the LC shelflist sample, included an analysis of the search of the CLSI database. The vast majority (about 90%) of the LC classified items have at least one circulating copy, and half of these are represented in the CLSI database, which contains the most recently acquired titles as well as those that have been borrowed since CLSI was instituted in 1978. Because Josiah will have a circulation component, the CLSI database must be addressed when considering retrospective conversion of the LC classed material. In marked contrast, only 109 (27.6%) of the 395 items in the non-LC sample circulate, and only 10 (9.2% of circulating items, 2.5% of the entire sample) are in CLSI. Therefore, the CLSI database is much less pertinent to the non-LC shelflists.

As in the LC shelflist sample, only items which might circulate on the CLSI circulation system were checked in that database. Therefore, the following 286 were *excluded* from this CLSI search:

- -items held only at the John Hay Library (231)
- -microforms (13)
- -maps (3)
- -Government Documents classed as Y4-Hearings (35)
- -Rock sound recordings (4)

Included in the CLSI search were all 109 circulating items, as follows:

- -non-Hay Cutters (42)
- -non-Hay numbered (7)
- -Farmington (7)
- -Documents (excluding Y4, microforms and maps) (49)
- -Pembroke sound recordings (4).

The 10 found in CLSI included 3 Cutters, 2 Numbered, 1 Farmington, and all 4 Pembroke records. None of the 10 CLSI records included LCCN or ISBN. All were accurate as to call number and location of the circulating copies, although in two cases an additional copy at the Hay was, of course, not included.

Accessibility and Circulation Policy:

Although the CLSI database has little relevance to the non-LC sample, there are other circulation-related facts that may be pertinent to possible retrospective conversion of this material. These include the accessibility of public catalog records, the accessibility of the material itself on open or closed stacks, and as already mentioned, the circulation policy for the material.

1. Accessibility of public catalog records. 122 items in the sample, comprising 30.9% of the sample, are not listed in the main card catalog. These include A.S.K. Brown (20), SuDoc documents (88), and all sound recordings (14). The latter are included in separate public catalogs at the Hay, either on level 2 of the Rock, or at Pembroke. All material in the LC shelflists theoretically is included in the main card catalog.

2. Accessibility of material. 276 (69.9%) of the non-LC sample is housed in closed stacks at the Hay (231) and at the Rock (45). Those on *open* stacks include K-classed Cutters (3), SuDoc documents (88), Farmington (7), Film (9), Microcard (1), Numbered (7), and Pembroke records (4). About 95% of the LC material is in open stacks.

3. Circulation policy. 109 (27.6%) of the 395 items in the non-LC sample may routinely circulate outside of the library. About 90% of the LC sample may be circulated.

	Number	Card Catalog		Stacks		Circ. Policy	
		MAIN	NOT MAIN	OPEN	CLOSED	CIRC	NON CIRC
A.S.K.Brown	20	--	20	--	20	--	20
Chambers	2	2	--	--	2	--	2
Cutter	48	48	--	3	45	42	6
Documents(SuDoc)	88	--	88	88	--	49	39
Farmington	7	7	--	7	--	7	--
Film	9	9	--	9	--	--	9
Harris	169	169	--	--	169	--	169
Kimball	1	1	--	--	1	--	1
Lincoln(unclass)	4	4	--	--	4	--	4
Maps (Boggs, uncl)	2	2	--	--	2	--	2
Microcard	1	1	--	1	--	--	1
Numbered	24	24	--	7	17	7	17
Records (Hay)	6	--	6	--	6	--	6
Records (Pemb)	4	--	4	4	--	4	--
Records (Rock)	4	--	4	--	4	--	6
Rider (boxes)	5	5	--	--	5	--	5
Sackett (scores)	1	1	--	--	1	--	1
Total	395	273	122	119	276	109	288
		69.1%	30.9%	30.1%	69.9%	27.6%	72.9%

Shelf Check:

As in the first shelflist sample, the final step of the non-LC sample process was to check the stacks and circulation records to see if the material was available in the Library or accounted for in circulation. This was done during intercession in January, a relatively "slow" time in circulation. Although the LC sample shelf check was done in the busy period of April, because so much of the non-LC material does not circulate (72.9%) and/or is in closed stacks (69.9%), the Task Force felt that the time of year the shelf check was performed would not significantly affect results.

The results of the shelf check were:

	# Titles	Percent
On shelf	371	93.9
Checked out	2	0.5
In process	9	2.3
Unaccounted	13	3.3

"Checked out" indicates that the item is charged to a patron, carrel or faculty study. "In process" titles are those at the bindery, known to be lost or missing, and those in process of transfer to a different location. All titles in the following groups were found on the shelves: A.S.K. Brown, Farmington, Film, Kimball, Microcard, Records (Hay), Records (Pemb), Rider boxes, and Sackett scores.

The 93.9% "on shelf" rate for the non-LC material compares with 86.1% for the LC classed material. The non-LC material showed a slightly higher percentage in process (2.3%) than the LC material, 2.1%. Only 3.3% of the non-LC items were unaccounted for, compared to 4.5% for LC titles, and .5% of the non-LC items were "checked out" as compared to 7.1% for the LC items. Those not on the shelves are as follows:

SHELFLIST	NO. IN SAMPLE	ON SHELF	CHECKED OUT	IN PROCESS	UN-ACCOUNTED
Chambers	2	1 (50%)	1 (50%)	0	0
Cutter (Rock)	42	39 (93%)	0	2 (5%)	1 (2%)
Cutter (Hay)	6	5 (83%)	0	1 (17%)	0
Documents	88	82 (93%)	0	1 (1%)	5 (6%)
Harris	169	163 (96%)	0	5 (3%)	1 (1%)
Lincoln uncl.	4	3 (75%)	1 (25%)	0	0
Map Room	2	1 (50%)	0	0	1 (50%)
Numbered (Hay)	17	14 (82%)	0	0	3 (18%)
Numrd (non-Hay)	7	6 (86%)	0	0	1 (14%)
Records (Rock)	4	3 (75%)	0	0	1 (25%)

Part V. Summary

The following tables summarize some of the more interesting data collected in the non-LC sample. The final column in each table gives an estimate of the total number of titles in the non-LC shelflist, based on an estimated 361,625 titles.

A. TYPE OF SHELF LIST CARD	#	Percent	Estimated # in Non-LC SLs
RLIN or OCLC	34	8.6%	31,127
LCCN on Shelflist (LC+local)	8	2.0%	7,324
LCCN in Card Cat. (LC+local)	92	23.3%	84,227
No LCCN (but item in card cat	139	35.2%	127.255
No LCCN, item not in card cat	122	30.9%	111.692
TOTAL	395		

B. RECORD FORMAT	#	Percent	Estimated # in Non-LC SLs
Monograph	340	86.1%	311.272
Serial	24	6.1%	21.972
Score	14	3.5%	12.817
Map	3	.8%	2.747
Sound Recording	14	3.5%	12.817
TOTAL	395		

C. LANGUAGE	#	Percent	Estimated # in Non-LC SLs
English	345	87.3%	315.850
Roman, non-English	47	11.9%	43.029
Non-Roman	3	.8%	2.747
TOTAL	395		

D. DATE OF PUBLICATION	#	Percent	Estimated # in Non-LC SLs
No Date	24	6.1%	21,972
Before 1700	1	.3%	916
1701-1800	6	1.5%	5,493
1801-1850	28	7.1%	25,634
1851-1900	56	14.2%	51,268
1901-1967	184	46.6%	168,453
1968-	96	24.3%	87,889
TOTAL	395		

E. LOCATION	#	Percent	Estimated # in Non-LC SLs
Rock	157	39.7%	143,734
Sciences	3	.8%	2,747
Pembroke	4	1.0%	3,662
Hay	236	59.5%	216,059
TOTAL	400+	101.3%	

+The totals exceed 395 and 100% because several titles are held at more than one library.

F. SHELF CHECK	#	Percent	Estimated # in Non-LC SLs
On Shelf	371	93.9%	339,653
Checked Out	2	.5%	1,831
In Process	9	2.3%	8,240
Not Accounted For	13	3.3%	11,902
TOTAL	395		

G. RLIN SEARCH *	#	Percent of Searched	Percent of Sample	Estimated # in Non-LC SLs
Brown Record. diff. ed.	4	1.1%	1.0%	3.662
LC Exact Match	41	11.4%	10.4%	37.536
Member Exact Match	73	20.2%	18.5%	66.832
Inexact Match	30	8.3%	7.6%	27.465
Not Found	213	59.0%	53.9%	195.003
TOTAL SEARCHED	361			

*The 34 RLIN and OCLC shelflist records are excluded.

H. OCLC SEARCH **	#	Percent of Searched	Percent of Sample	Estimated # in Non-LC SLs
LC Exact Match	41	11.4%	10.4%	37,536
Member Exact Match	144	39.9%	36.5%	131.833
Inexact Match	38	10.5%	9.6%	34.789
Not Found	138	38.2%	34.9%	126.340
TOTAL SEARCHED	361			

** The 34 RLIN and OCLC shelflists are excluded.

I. NUC SEARCH ***	#	Percent	Percent of Sample	Estimated # in Non-LC SLs
Brown Cataloging	36	20.8%	9.1%	32.958
LC + Other Match (Exact)	52	31.4%	13.2%	47,734
Inexact Match	12	6.9%	3.0%	10,986
Not Found	72	41.9%	17.7%	64,085
TOTAL SEARCHED	172			
Not Searched				
Assumed LC	116		29.4%	106,318
LC cards	73		18.5%	66,900
Not Searched	47		11.9%	43,033

*** All items for which previous searches indicated that LC cataloging exists were excluded.

J. CLSI SEARCH ****	#	Percent Searched	Percent of Sample	Estimated # in Non-LC SLs
Found	10	9.2%	2.5%	9.155
Not Found	99	90.8%	25.1%	90,635
TOTAL SEARCHED	109			

**** All non-circulating items are excluded.

Part VI. Conclusion and Comparison with the LC Sample

Most of the material in the non-LC sample is located at the John Hay Library, just under 60%. Nearly 40% is at the Rock, with just over 1% at Pembroke and less than 1% at the Sciences Library. In contrast, the LC sample had 78% at the Rock, 17% at the Sciences Library, 4% at the John Hay and .4% at Pembroke.

The material contained in the non-LC shelflists is older than that in the LC classed collections, more than 23% being published before 1901 as compared to just under 13% for the LC classed material.

There is more non-monographic material in the non-LC shelflists than in the LC shelflist. The LC shelflist was 96% monographic while the non-LC shelflists together are 86% monographic.

The non-LC titles have a higher percentage in English, 87%, than the LC titles, 68%. The non-Roman material comprised less than 1% of this sample as opposed to 5% in the LC sample.

Only 8.6% of the cards in the non-LC shelflists are already in machine-readable form as compared to 24% in the LC sample. Library of Congress cards accounted for 19% of the total: this compares with just over 24% in the LC sample. However, only 5 of the 73 LC cards pulled in the non-LC sample retained their LCCNs because the cards were cut in half. In fact, most of the cards in this sample are half-sized. The majority of the cards in the non-LC shelflists were cataloged locally, 70%. The figure for the LC shelflist was 46%.

Only 2.2% of the non-LC shelflist cards in need of conversion contained an LCCN; this compares with 39.1% for the LC sample. By searching the card catalog, NUC, RLIN, and

OCLC, LCCNs were found for 57.6% of the shelflist cards in need of conversion in the non-LC sample. A comparable figure for the LC sample was 86.8%. That leaves 42.4% of the non-LC titles in need of conversion for which no LCCN could be found. The figure for the LC sample is 13%.

The searching results on RLIN and OCLC for the non-LC material differs significantly from the results of the LC sample. "Hits" for exact matches in OCLC were 51.2% versus 31.6% in RLIN. The LC results were 82% on OCLC and 63% on RLIN. By combining the records for which an LCCN was found on the shelflist card with those that we assume would be LC because we found an LCCN in RLIN/OCLC or Main, 80.1% of the non-LC records would be in the *National Union Catalog*. The comparable figure for the LC sample was 90%.

In addition to the records for which an LCCN was found in Main, RLIN, OCLC, or NUC, 44 more records were located in RLIN/OCLC without an LCCN attached and 41 in NUC. This left 68 "problem records" (18.8% of the titles in the sample in need of conversion). In contrast, 5.5% of the LC sample turned up to be "problem records." An analysis of the non-LC "problem records" showed almost one-third to be in non-print formats and 11% to represent unpublished material (theses, university reports).

The search of the CLSI database for the non-LC sample titles showed that only 27.6% circulate and only 2.5% were actually in the CLSI database. Also, 69.9% of the sample titles are closed stacks and 30% are not even represented by cards in the Main catalog (e.g., documents, A. S. K. Brown).

Thus, the material in the non-LC shelflist is more problematic than the material in the main LC shelflist. There is a higher percentage of local cataloging; the number of titles already in machine-readable form is small; the titles are older, have fewer LCCNs, and contain more serials, scores, and maps; there is a much higher percentage of "problem records." On the other hand, there is very little non-Roman material, and a smaller number of Roman non-English titles than in the LC sample.

Completed Project

KENT STATE UNIVERSITY LIBRARY 6/82

Shelf List Conversion Project

INITIAL STEPS

In February 1979, the Kent State University Library began an in-house, OCLC based shelf list conversion project. The most compelling reasons for initiating the project were: 1) the possibility of some form of integrated online system within the next 2-3 years; 2) the probability that, at some time in the near future, OCLC would attach a charge to conversion which, to this point, had been free to libraries with authorized conversion projects; 3) the availability of a certain amount of staff time for a conversion project.

Because the Library's years of massive collection growth and membership in OCLC coincided, there was a less significant body of material to be converted than in libraries with older collections or fewer years online--an estimated 230,000 (approximately 18%) of the Library's 1.3 million titles. The project utilized existing staff and was based on a plan in which three teams would work through the shelf list in waves of progressively more difficult conversion.

THREE TEAM CONVERSION PLAN

Team	Tasks
I	Work through the shelf list, ignoring OCLC cards and converting cards representing a single copy with LC cataloging. Search by LC card number, by title, and by author/title search keys. If a bib record can be found to "match" in 1xx, 245, 250, 260 and either 050 or 090, update the record. Make no other changes. Stamp "updated" on the front of the card.
II	Work through the shelf list, ignoring OCLC and updated cards, converting any card for which an online "match" can be found in terms of 1xx, 245, 250, 260. Modify all other critical fields to correspond with the shelf list card. Include all holdings statements. Stamp "updated" on the front of the card.
III	Work through the shelf list, ignoring OCLC cards and updated cards. Perform tasks of Team I and II (in case they were not found by earlier passes, or in case records were added to the data base since Team I and II checked for them). Input all remaining records, as they appear on the shelf list card. Stamp "updated" on the front of the card.

TEAM I

Team I consisted of 6 members of the Library's support staff whose normal responsibilities included clerical supervision, filing, and searching. They each had substantial library experience but little or no experience in operation of the CRT. These six were assigned to Team I activities and given the following set of specific instructions at their first training meeting. Their task was pure verification--to decide whether the online bib records matched the LC card or not.

TEAM I ACTIVITIES

1. Log-in using a specially assigned conversion log-in number.
2. Pull a shelf list drawer. Sign in on the conversion log, indicating the drawer number you're working on and the date you pulled it. Leave a note on the shelf list indicating that you have taken the drawer for conversion. Take the drawer to the CRT.
3. Thumb through each card in the drawer skipping:
    a. OCLC cards
    b. Cards stamped "Serial record" (All serials were converted in a separate project conducted in 1976-1977)
    c. Cards with multiple holdings written on them
    d. LC cards that have been altered (You can usually spot typed information on an LC card--your clue that the card has been altered)
    e. Cards with series statements
    f. Cards in non-Roman alphabets
4. Stop when you encounter LC cataloging which represents a single copy. You can identify LC cataloging by the LC card number in the lower right hand corner, the name "Library of Congress" in the lower left. Most of these cards also have a distinctive typeface which is easily recognized.
5. Once you have found LC cataloging for a single copy of a title, search the data base for that title. Search first by LC card number. If the LC card number does not produce a satisfactory response, search by author / title and by title.
6. When the bib record is displayed on the screen in front of you, match it to the card. Check each field on the screen to each element on the card.
7. If you have a perfect match, hit the "update" key and then the "send" key. Stamp the front of the card "updated" in the upper right hand corner. If you do not have a perfect match do not update.

After working with the above guidelines for one month, Team I's repertoire was expanded to include the modifications listed below. This was the beginning of content editing which, with time, became more and more a part of Team I conversion. It was introduced or rather crept in as a result of Team I's ability to detect the need for modification, their desire to operate on a more sophisticated level and the realization that these editing activities were worthwhile in terms of what was expected in a future online catalog.

POINTS OF EXPANSION IN THE TEAM I REPERTOIRE

1. If the 300 field lacks a size statement and if your card indicates that the piece is over 30 cm. in height, fill in the size. (At KSU separate shelving arrangements are made for books measuring 31 cm. and above)
2. If there are fill characters in the indicator columns (these will appear as solid green rectangles) they can be replaced with the correct indicator. Ask a supervisor for help in consulting Books Format to determine the character to be used.
3. If certain notes appear on your card but have been omitted from the screen, you may ingnore them as long as everything else matches perfectly. To begin with ignore the following types of notes:
    --at head of title
    --includes index
    --general bibliography
4. If there is a subtitle on your card but it has been omitted from the screen you may ignore it as long as everything else matches perfectly.
5. Correct simple typos.
6. Fill in the LCCN if it appears on the card but is missing from the 010 field,
7. Add the appropriate indicator in the 245 field if your title begins with and article.

Two months into conversion, Team I also began updating cards with simple multiple holdings statements (i.e. filling in simple 049 fields), and converted cards bearing series statements tagged 490 0 or 440. By July, with three months of experience, Team I began to fill in entire 090 or 050 fields when required.

By August 1980, Team I had become a good part of what Team II was originally intended to be. The group averaged 20 hours per week per person over 18 months, had begun its second pass through the shelf list and had converted approximately 140,000 titles.

MID-PROJECT ADJUSTMENTS

In July 1980 OCLC announced rates for conversion which, to this point, had been free of charge. As of September 1980 a 5¢ charge was to be applied to conversions done outside prime time. Each prime time conversion would be billed at 60¢.

During September 1980 a shelf list survey revealed that, of the approximately 80,000 remaining unconverted titles, as many as 30% might require new input.

In order to accomodate the above changes in price and new information on the nature of the work left to be done, the following steps were taken. The Library's 4 input operators were added to Team I so that that group could complete a 2nd pass through the shelf list at a level of moderate difficult content editing. The CRT schedule was expanded so that all conversion could be done during non-prime hours. Four associate catalogers, the highest paraprofessional level in the Library, formed Team II. Their assignment was to follow Team I through the shelf list doing difficult content editing. In view of the fact that there were significantly more NEW and original conversions to be done that had been anticipated, four professional catalogers supplemented by two graduate students in Library Science formed Team III to begin NEW input (i.e. build new bib records based on similar online copy).

TEAM II ACTIVITIES

When associate catlogers began their pass through the shelf list it was recognized that Team III, following them and creating new records, would be well-served if unconverted titles were flagged--to avoid the necessity of re-examining each card in a drawer. To that end, every unconverted title was paper-clipped and a colored check placed in the upper right corner of the card indicating what kind of treatment was required:

1) New record could be built on similar online copy; 2) completely original record would have to be input; 3) a problem existed and the book would have to be examined. In this last instance, an analysis of the problem or a question was usually penciled in the margin of the card.

The most significant issue raised at this time was the reliability of the shelf list. Over the years new "editions" of a title had been cataloged variously on the basis of printing dates, copyright dates and title page dates. The dilemma now was to determine what constituted a true edition of a title and make a decision whether or not to update on a given piece of online copy. In order to avoid the more time-consuming new/original input, existing OCLC records were often edited and updated based on the thinnest shreds of evidence that they represented the same edition as the shelf list card.

TEAM III ACTIVITIES

Four professional catalogers and two graduate students in Library Science formed Team III and followed Team II converting all records which had been flagged for NEW input, records which could be built on similar online copy. Team III attempted to fill in odd prime time hours since their conversions were without charge. They followed OCLC's guidelines on transcription of retrospective copy (issued February 1981) as represented in the following local interpretation.

INPUT OF NEW RECORDS

1. Pull shelf list card.
2. Check all headings against LC online name authority file. Headings may appear in the 1xx, 6xx, 7xx field. For headings appearing as series authors, use a procedure analogous to what was done in OCLC's data base conversion. That is, attempt to find and AACR2 form of author's name but retain the author/title format.
3. Pencil code or modification required on card based on the results of the authority check. If heading is not found in the authority file place a small "o" next to it on the card. If the heading is found and compatible (no change) place a small "✓" next to it. If heading is found and differs from the form on the card, write modified heading above the pre-AACR2 form.

4. Input record directly from shelf list card supplying AACR2 headings and the appropriate #w after every field containing a heading. In virtually every case our shelf list cards will bear non-ISBD punctuation so, unless building a NEW record on similar ISBD copy already online, make your input non-ISBD.

5. If inputting original cataloging......fixed field Desc = ƀ
Source = d
040 = KSU

6. If inputting LC cataloging...........fixed field Desc = ƀ
Source = ƀ
040 = DLC #c KSU
Mod rec = m (if headings changed)
040 = DLC #c KSU #d KSU (if headings changed and you use "m" in Mod rec)

FINISHING THE JOB

In March 1981, a progress assessment was made. Since February 1979, 186,730 titles had been converted --an average of 7,780 a month. Based on the latest shelf list survey, 34,000 unconverted titles remained, 30% of which would have required NEW or original input. At this point two additional part-time input operators were hired to work a total of 20 hours a week on original conversion and problem records. These persons were experienced--held full time jobs as input operators at a neighboring institution--and required only a few hours of training in Kent State's procedures. They began a final clean-up pass through the shelf list inputting all unconverted titles. They also pulled cards with problems which required that the book be examined and placed them in a problem box. These cards had been coded by Team II on an earlier pass and, in most cases, an analysis or question had been penciled in the margin of the card. Library staff not directly involved in online conversion worked through the problem box, pulling and examining books, resolving problems and revising the shelf list cards. The revised cards were then sent back to the conversion team for input

In March 1981, Team I retired, having accomplished all it could at its level of expertise. The remaining 3 teams worked through completion of the project in March 1982. A total of 222,233 records were converted in 3 years and 1 month.

The following table presents a comprehensive (and somewhat simplified) picture of the number and level of staff involved, number of conversion hours and gives some sense of the pace of the work.

TEAM COMPOSITION	LEVEL OF WORK	LENGTH OF INVOLVEMENT	AVG TIME SPENT PER WK PER PERSON	TOTAL HOURS
Team I				
6 clerical support staff 4 Input operators	Moderately difficult content edit	Feb. '79-Mar. '81 (13 months)	12 hrs.	6,240
Team II				
4 associate catalogers	Difficult content edit	Sept. '80-Mar. '82 (18 months)	15 hrs.	4,320
Team III				
4 professional catalogers 2 Lib Sci students	Input of NEW records	Sept. '80-Mar. '82 (18 months)	12 hrs.	5,184
Team IV				
2 Input operators (hired from outside)	Original input--problem resolution	Apr. '81-Mar. '82 (11 months)	10 hrs.	880
4 Input operators			15 hrs.	2,640
			TOTAL HOURS	19,264

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